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# THE SOCIAL COMPOSITION OF THE TEACHING POPULATION

BY

LOTUS DELTA COFFMAN, Ph. D.

TEACHERS COLLEGE, COLUMBIA UNIVERSITY  
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L. D. C.





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# THE SOCIAL COMPOSITION OF THE TEACHING POPULATION

## CHAPTER I

### INTRODUCTION

#### NEED OF THE STUDY

Almost every observation that has modified practice and practically every scientific study that has contributed to our general information in education, have in their final analysis enhanced the importance of the teacher. Studies of an accurate character attempting a description of the individual who mediates between the child and the outside world, have seldom been attempted. Theoretical descriptions of the facts that affect the teacher's personality and efficiency have been frequently made by educational sentimentalists or idealists. The efforts at accurate, concrete scientific description that have been made will be referred to later.

The important fact is that the teacher occupies the key position of the educational situation. She stands constantly on the frontier of childhood; she deals with weak, plastic, and variable children. It is her business so to order the materials of education as to satisfy the inborn cravings of the child and so to modify his experiences as to make him not only a more efficient worker but a better companion for himself and for others.

In view of the great potential service the teacher can render, questions of paramount importance arise concerning her, such as, "With what motive is she imbued? What is her economic and social station? What kind and how much training does she receive? What maturity of age and of judgment has she? Is her comprehension sufficient to enable her to increase her general culture?" It is the merest platitude to say that we have no definite standards by which to weigh these questions. Our re-

sponse to such problems has been instinctive and intuitive rather than based upon rational inquiry.

Teaching like every other profession and occupation tends to select its own type of workers. What type does it select? To discover, measure, and describe all the factors that determine this relation and also to describe with scientific accurateness all of the relations that exist among the members of this selected group represents a task far too stupendous for a single investigation.

#### LEGAL NORMS

The problem, however, could be approached in various ways. The composition of the teaching population may be measured by the statutory norms that are set up for entrance into it. This would necessitate a compilation and interpretation of the various state requirements\* and of the various district, county, and city requirements as they affect examination, certification, and appointment. Of course these legal limitations are expressed positively as affecting general training, professional training, experiences, moral character, and health, and negatively as affecting dismissal, supervision, and the revocation of the certificate. Gross correlations as to whether these requirements are general or local, permanent or transient, could no doubt be discovered.

#### NON-STATUTORY NORMS

The non-statutory or customary norms and conditions controlling teaching and teaching efficiency, would also prove profitable for study. Many trite and often effusive articles have been written upon this feature of education, but no effort of scientific merit has been made to evaluate these forces; and yet most every teacher and every superintendent has at times been made painfully conscious of them. Out of a group of a hundred teachers who meet all of the conditions imposed by law only five, ten, or twenty may meet the conditions imposed by the community. These non-statutory norms or community standards work in two ways: either to the reduction or to the raising of the minimum

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\*Since this was written a bulletin issued by the Department of Education at Washington, prepared by Dr. Harlan Updegraff, specialist in school administration, gives this information as it affects certification.

standard among the available. They are also of two kinds, general and local: The general consider training, experience, health, personality, age, and the like; the local consider race, church membership, politics, sociability, and temperamental habits.

In view of the scope of the field, this investigation was limited to a consideration of a few of the social and economic sources of the teaching population as determined by existing standards and conditions and to the further consideration of a few of the interrelations within the population. The specific problems treated are the economic level and conditions from which teachers come, their age and sex distributions, the nationality factor and the group interrelationships of salary, position, training, and experience.

#### ORIGINAL DATA

The original data were obtained in response to the questionnaire printed on page 4. This questionnaire was distributed with the view of obtaining a random sampling of teachers over the United States in rural, town, and city schools. Such a sampling should give a truer description of the American teacher than facts secured from a selected group, such as principals, superintendents, or primary teachers. The answers were all collected between the middle of August and the middle of December, 1910.

These questions were submitted to teachers in twenty-two states. Returns were received in time to be used from the following states only: New Hampshire, New York, New Jersey, Pennsylvania, Maryland, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Kansas, Missouri, Montana, Idaho, Tennessee, Georgia, and Texas.

In the main, the answers were secured from teachers while they were assembled in convention under the county superintendent, the city superintendent or some representative of these officers. In some towns and cities the answers were secured from teachers by buildings or by rooms. In every case the nature and purpose of the investigation were explained and teachers were informed that they need have no hesitancy in answering the questions as they could never be identified by their answers. Every effort was made to have the selection entirely at random. The relative proportion of the sexes secured

# THE QUESTIONNAIRE

TEACHERS ARE REQUESTED TO CHECK [X] OR UNDERScore WHERE IT IS POSSIBLE.

1. Male or female.
2. Age at nearest birthday.
3. Native born with native born parents.  
Native born with foreign born parents.  
Foreign born with foreign born parents.
4. Native language of father      Of mother
5. Father's occupation when you began teaching.
6. Total number of brothers and sisters.
7. Check item that would most nearly represent the parental annual income when you began teaching:

\$250 or less	\$1000 to \$1250	\$2000 or more
250 to \$500	1250 to 1500	
500 to 750	1500 to 1750	
750 to 1000	1750 to 2000	

8. Were both parents living when you began teaching?  
If either was dead, which one?
9. Number of months for which your present contract is drawn.
10. Salary per month this coming year.
11. Position now holding (underscore).

Rural school teacher	
Kindergarten      "	Kindergarten principal
Primary      "	Primary      "
Intermediate      "	Intermediate      "
Grammar      "	Grammar      "
High school principal	
High school teacher	Subject teaching
Special grade supervisor	what grade
Special subject      "	what subject
District      "	
County superintendent	
Assistant      "	
Superintendent	

12. Do you board at home while teaching?
13. Age when you began first employment as teacher.
14. Number of years taught in country.  
in village or town.  
in city.
15. Number of years studied in high school.  
in normal school or teacher's training classes.  
in college or university.
16. Length of time for which your present certificate was issued.

by my returns (75.6 per cent women, 24.4 per cent men) corresponds very closely to the results given by the Commissioner of Education for the whole United States (78.3 per cent women, 21.7 per cent men) and gives an additional indication that the selection was at random.

This sampling was made in three counties in New Hampshire, six in New York, six in New Jersey, four in Pennsylvania, three in Maryland, six in Indiana, five in Illinois, three in Wisconsin, three in Minnesota, one in Iowa, three in Kansas, four in Missouri, two in Montana, two in Idaho, three in Tennessee, two in Texas, and eight districts smaller than counties in Georgia. In every case these included rural, town, and some city teachers. Additional samplings were made of the teachers in Paterson, New Jersey; Indianapolis, Marion, and Richmond, Indiana; Hornell, Batavia, New York; Winona, Minnesota; Decatur and Quincy, Illinois; Joplin, Hannibal, Missouri; Mount Morris, Pennsylvania; Chattanooga, Tennessee; Atlanta, Georgia; and Austin, Texas. About 5,500 answers were secured, 5,215 of which are used in this report, 1,178 being from men and 4,037 from women.

#### ELIMINATIONS

Those blanks were thrown out where the teacher apparently had grossly misunderstood the questions or where the checking and underscoring had been done in such an indifferent and slovenly manner as to make it impossible to distinguish the correct answers. Where "age at nearest birthday" was given as some day of the month with the year omitted, as January 17, the answers were not used. So few of the questions were answered in some cases as to make the use of the remaining ones inadvisable. This was true more frequently of the women than of the men. Such cases, however, were relatively rare as there was a marked effort to answer honestly and in detail. No use was made of the answers of young people who had never taught and who had no position.

#### SOURCES OF ERROR

It might seem that the sixth question should have been stated "Number of brothers and sisters at the time you began teaching." In order to see what difference this would have made,



four hundred answers from Baltimore county, Maryland, where the question was stated in this form, were separated, and it was found that the median number of brothers and sisters is five, the same as it is for teachers in general. Consequently no change was made in the form of the question as it was submitted later.

There are without doubt errors in the answers to the seventh question. This question, the only one in the list, called for judgment, the data for which existed with varying degree of distinctness in the minds of the teachers. Then, too, the conditions under which the questions as a whole were answered, could not possibly have been the same for all places. Sex differences in the ability to judge this item were noticeable, a larger percentage of men than women answering it. The judgments of the men are probably more reliable than those of the women. Next to the estimate parents themselves might give of their incomes the opinions of their children are perhaps best.

The ninth question seemed to be somewhat confusing in certain places. Throughout the West a teacher contracts to teach a certain number of months during the year; in the East in some places, notably in Maryland and New Jersey, contracts become permanent after a limited service, usually three years, although the teacher is paid only for a limited number of months of the year. To avoid this confusion teachers were told that this question meant the number of months of the year for which they were paid.

Variation in the length of school year with different sections of the country can scarcely be regarded as an error, as the salary received, no matter what the length of the year may be, in most cases constitutes the annual income of the teacher.

A difficulty sometimes arose in classifying teachers as rural, town, or city teachers. If a teacher had taught three years in the country and four in town, she was classed as a town teacher; but if she had also taught two years in a city she was classed as a city teacher. No doubt an error was sometimes made in doing this as it was not always possible to tell where the person is now teaching. No trouble occurred if she was a rural teacher as the information under "Position now holding" was sufficient; it was when an individual had taught in both the country and town, or country and city, or town and city, or all three that

trouble arose. However, it happened very infrequently that we were not able to tell, as the returns were tabulated as they came in. When there was any doubt as to whether a given place was a city or a town, the classification used by the Commissioner of Education (a population of 4,000 and over being a city) was accepted.

Four summer terms of six weeks and three of twelve weeks were counted as a year; and terms of less length were rated accordingly. Where a teacher had had no high-school training, but indicated that he had had university training, credit was given for the latter, although it must in many cases have been used as a substitute for the former. Such cases were usually among the old teachers—those who entered teaching twenty or more years ago.

Under training, all fractions of a year after the first were included in the integer next below; for example,  $2\frac{1}{2}$  meant 2,  $4\frac{1}{3}$  meant 4, etc. No very large fractional group appeared in any state except Indiana and there it is due to a legislative enactment demanding twelve weeks professional training beyond the high school before a license to teach can be granted.

As some of the answers were collected after the present school year opened there was a tendency among these to include the present year in their experience, while those from whom answers were secured before the opening of the present school could not count it. Wherever it was observed that this extra year was being added, it was eliminated, but in spite of the very closest scrutiny of the returns it must have escaped detection now and then.

No use whatever is made in this study of the data gathered from the sixteenth question.

#### METHOD OF TABULATION

The first large task was casting the answers to these fifteen questions, which when separated into their parts really made more than fifty, into some convenient form for future reference. It would have been an impossible task to have handled 5,215 separate sheets for each of the tables. Each sheet, however, was given an individual number. Then the different items of the separate questions were numbered. For example: "Native

born with native parents" was numbered 1, "native born with foreign born parents" was numbered 2, foreign born with foreign born parents" was numbered 3. The native language of each of the parents was designated by an abbreviation, E meaning English; S, Scotch; Swi, Swiss; N, Norwegian; D, Danish, etc. The occupations of the parents were given a rough but simple classification and numbered as follows: 1, farmers; 2, professional men; 3, business; 4, artisans; 5, day laborers; 6, public officials; 7, retired; 8, invalids. Beginning with "\$250 or less" the items under the seventh question were numbered from 1 to 9; and those under eleventh question from 1 to 17, "subject teaching," "what grade," and "what subject" not being numbered at all. If both parents were living the answer was marked 1; if the father was dead, 2; if the mother, 3; if both, 4. If one boarded at home the answer was marked X; if he did not, N. No scheme of notation was used for the answers to any of the other questions; they were put down as they were given. The reason for changing the order of the questions as they are listed in Table I from the original order found in the questionnaire, was to group more closely those items that must obviously be related.

For the purpose of illustration the appearance and use of this original table or Table I (pages 10 and 11), the natural history of sixty teachers selected at random from the entire list, is given.

The history of any of these individuals can be read as follows: Number 1 is a male teacher, 32 years of age, whose parents had an income between \$1,500 and \$1,750 when he began teaching. He is hired for seven and one-half months at \$70 a month. He began teaching at 19 and has taught continuously for thirteen years in the rural schools. His preparation consists of three years of high-school work. He is native born with native born parents; his father's native language was English and his mother's German. His father was a farmer. He had six brothers and sisters. Both parents were living when he commenced to teach. He now holds a rural school position and boards at home.

Number 12 is 26 years of age, the son of parents whose income was between \$500 and \$750 a year; he is hired for eight months at \$105 a month; began teaching at 17; taught two years in the country and three in town; studied four years in a

high school and two and one-half years in a college or university; is native born of native born parents; his father and mother both spoke the English language; the father was in business; there were four other children in the family; both parents were living at the time he began teaching; his present position is that of grammar grade principal and he boards at home.

Number 46 is a female teacher, 35 years of age whose parents were earning less than \$250 a year at the time she entered teaching. She is engaged for nine months at \$65 a month. She began teaching at 18, taught three years in the country and fourteen in town. Her training consisted of two years in high school and two years in a normal school. She is native born with one or both parents foreign born. Her father was an Englishman, but her mother was a Welshwoman. There was no paternal occupation as her father died before she began teaching, leaving eight children in the family. She is a grammar grade teacher and boards away from home.

Number 55 is a female teacher, 35 years of age, whose parents were earning between \$1,000 and \$1,250; she is hired for ten months at \$55 a month. She began when she was 19 years old and has taught two years in the country, four in town and ten in a city. Her preparation consisted of two years high school and two years normal school work. The native born with native born parents, both of whom speak the English language. The father was a day laborer; there were seven children in the family; the mother was dead when this young woman began teaching. She is a primary teacher and boards away from home.

One can scarcely read the record of a single teacher without noting some form of economic or social pressure that must have forced him or her into active work. That the reader may convince himself of this, the author advises that he select a dozen or more and read their histories carefully. They cannot fail to be interesting.

Had it not been for the expense this original table would have been printed in full. The records from which it was compiled have been filed at Teachers College so that any one who wishes to use or to duplicate it, or to pursue the investigation along other lines, may do so.

In the first chapter that follows, general tables based upon this original table are printed in full. This may seem useless to

TABLE I  
THE HISTORY OF SIXTY TEACHERS SELECTED AT RANDOM

In- div. No.	Age	Par- ent in- come	No. mos.	Sal. per mo.	Beg. age	Rural schl.	Town schl.	City schl.	H. S.	N. S.	Univ.	Nat- ivity	Pat. lang.	Mat. lang.	Par- ent oc- cupa.	No. B. & S.	Fam. con- dition	Posi- tion	Re- sidence
NATURAL HISTORY OF TEN MEN WHO TEACH IN THE RURAL SCHOOLS																			
1	32	7	7½	\$70	19	13	0	0	3	0	0	1	E	G	1	6	1	1	X
2	25	4	7	70	21	4	0	0	4	2	0	1	E	E	1	2	3	1	N
3	26	1	7	57	20	6	0	0	1	1	0	1	E	E	1	1	1	1	N
4	21	3	7	60	21	1	0	0	4	2	0	1	E	E	4	5	1	1	N
5	53	3	7	74	18	22	0	0	2	0	0	1	E	E	1	8	3	1	N
6	26	5	10	75	17	3	7	0	3	0	0	1	E	E	0	3	1	17	N
7	35	5	10	84	21	10	0	0	0	0	0	1	E	E	3	9	1	17	X
8	25	6	8	50	25	1	0	0	4	0	0	1	E	E	1	9	3	1	X
9	22	4	9½	52	19	2	0	0	5	0	0	1	E	E	1	4	1	1	X
10	22	5	9	48	20	1	0	0	4	0	0	1	E	E	1	1	1	1	X
NATURAL HISTORY OF TEN MEN WHO TEACH IN TOWN SCHOOLS																			
11	26	4	7½	70	17	4	5	0	3	1	0	1	E	E	0	0	2	4	X
12	26	3	8	105	17	2	3	0	4	0	0	2½	E	E	3	4	1	7	X
13	20	2	10	60	18	1	1	0	4	0	0	3	E	E	2	3	1	17	N
14	56	5	10	135	18	2	33	0	3	0	4	1	E	E	1	12	1	6	X
15	39	4	10	120	19	2	17	0	4	2	2	1	E	E	2	1	3	6	N
16	33	0	10	60	20	0	12	0	0	3	0	1	E	E	0	5	2	3	X
17	24	0	10	64	21	0	3	0	0	4	0	1	E	E	1	2	1	6	N
18	45	0	10	130	16	0	21	0	0	4	3	1	E	E	0	2	4	17	X
19	53	1	7	50	16	20	17	0	0	2	2	1	G	G	1	1	1	1	X
20	36	2	9	50	22	11	3	0	2	0	0	1	G	G	1	0	1	4	X
NATURAL HISTORY OF TEN MEN WHO TEACH IN CITY SCHOOLS																			
21	41	2	9	133	19	2	10	7	2	2½	4	1	E	E	5	5	3	6	X
22	29	2	12	68	19	4	4	2	4	2	1	1	E	E	4	11	1	5	X
23	29	2	12	142	24	1	1	4	4	0	5	1	E	E	1	8	1	16	N
24	35	8	10	100	20	6	4	6	4	3	1½	1	E	E	5	3	3	7	N
25	27	8	10	160	19	7	3	4	4	2	2	2	S	E	2	3	1	13	X
26	25	8	10	108	19	2	3	3	2	0	4	1	E	E	3	6	3	17	X
27	35	5	10	113	20	3	8	4	3	3	0	1	E	E	7	2	2	7	X
28	28	3	10	65	21	2	3	1	1	1	1	1	E	E	1	3	2	7	X
29	31	3	10	150	19	1	3	2	4	0	4	1	E	E	1	2	1	17	X
30	48	0	9	75	22	2	20	4	2	2	2	1	E	E	0	6	1	6	X

## NATURAL HISTORY OF TEN WOMEN WHO TEACH IN THE RURAL SCHOOLS

31	20	5	10	55	19	1	0	0	4	2	0	1	E	E	4	1	X
32	20	3	10	50	18	2	0	0	4	0	0	1	E	E	4	1	1
33	25	2	8	60	19	6	0	0	4	0	0	1	E	E	5	3	1
34	21	3	8	40	19	2	0	0	3	2	0	1	E	E	5	1	N
35	25	4	7	40	20	5	0	0	3	0	0	1	E	E	12	1	N
36	22	5	6	55	21	1	0	0	2	0	0	3	E	E	5	1	N
37	22	1	6	30	21	0	0	0	0	0	1	1	E	E	0	1	N
38	20	4	7	40	19	0	0	0	4	0	0	1	E	E	0	1	X
39	18	4	8	35	17	1	0	0	0	2	0	1	N	E	1	1	N
40	28	5	9	40	20	4	0	0	2	0	2	1	E	E	6	1	X

## NATURAL HISTORY OF TEN WOMEN WHO TEACH IN TOWN SCHOOLS

41	22	4	10	45	21	0	1	0	4	2	0	1	E	E	4	1	N
42	31	2	10	65	20	2	8	0	4	2	0	1	E	E	3	1	N
43	23	2	10	60	19	2	2	0	1	4	0	1	E	E	1	1	N
44	19	0	7	45	18	1	1	0	3	0	0	1	E	E	1	1	X
45	36	4	8	50	18	6	6	0	0	2	0	1	E	E	1	1	N
46	35	1	9	65	18	3	14	0	2	2	0	2	E	W	0	1	X
47	40	2	10	40	16	6	17	0	3	0	0	1	E	E	1	1	X
48	23	0	10	47	20	0	2	0	4	2	0	1	E	E	0	1	X
49	30	1	9	60	18	2	9	0	4	0	2	1	E	E	3	2	X
50	32	5	9	55	19	3	10	0	3	1	0	1	E	E	4	3	X

## NATURAL HISTORY OF TEN WOMEN WHO TEACH IN CITY SCHOOLS

51	28	5	10	65	18	1	4	2	3	1	4	2	E	E	0	2	X
52	28	2	10	59	20	0	0	0	4	3	0	2	E	Sc	5	1	X
53	25	9	10	50	20	0	0	5	4	3	0	1	E	Sc	4	5	X
54	53	9	9	100	19	10	15	9	2	2	0	1	E	E	1	2	X
55	35	4	10	55	19	2	4	10	2	2	0	1	E	E	5	10	X
56	49	4	10	65	16	1	14	16	4	2	0	1	E	E	6	3	X
57	25	6	9	64	18	0	0	7	3	1	0	1	E	E	3	1	X
58	44	0	10	85	17	0	4	21	0	2	1	2	W	E	3	1	N
59	20	8	9	55	19	0	0	1	3	0	0	1	E	E	5	1	X
60	31	1	9	40	16	7	0	7	1	0	0	2	E	G	3	4	X

some. It was done that those who are interested in pursuing the study to its end might see the various ways in which the data were necessarily handled and that those who wish to make similar studies with special groups of teachers might find a method ready made for them. The reader will observe that only a few of the numerous possible relationships have been worked out in this study; any enterprising student can find others.

The weakness of many other otherwise meritorious studies in education and in the various fields of social and biological sciences is that the data and working methods have not been presented in sufficient detail to enable the serious student either to check the results or to duplicate the process. Often the only results presented are the mere averages, no distribution of frequencies appearing. "That clown of statistics—the average—has been made to perform grotesque antics to please and win the applause of both the unthinking and those inspired with ulterior motives."<sup>1</sup> Central tendencies without some notion of the distribution that gives rise to them or of the variability of the cases, are educational junk which the neophyte plays with and the educational reformer uses for unscientific and sometimes pernicious ends. Our great need is for statistical methods. There is little danger of school men going too far in this direction; the danger is that they will not expend the energy and time necessary to become sufficiently expert to test the validity or falsity of present notions and standards in education.

#### STATISTICAL METHODS EMPLOYED

The reader not versed in the statistical technique used is referred to "Mental and Social Measurements" by E. L. Thorndike.

The median, *M*, the measure above and below which exactly fifty per cent of the cases lie, is used for the central tendency. It can be found more quickly than the average and is not so sensitive to over-weighting due to extreme cases.

The quartile, *Q*, was used for variability instead of the average deviation or standard deviation. This is found by counting in from the low end of the distribution 25 per cent of the

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<sup>1</sup>Elliott, *Some Fiscal Aspects of Public Education*.

cases; and counting in from the high end of the distribution 25 per cent of the cases. The two points found mark the limits of the middle 50 per cent, which is always a more significant measure of variability than the total range of the cases. Subtracting the lower from the higher value and dividing the difference by 2, gives the quartile or variability in steps of the unit of measure. Any individual case will probably fall within the limits of this variability when applied both above and below the median.

Wherever the two sexes were measured with reference to the same thing and it was desired to compare them, the percentage of the one that reached or exceeded the median of the other, was often used.

#### CRITICISMS

Two criticisms are likely to be made of this investigation: The first is that it does not cover a wide enough geographical area, and the second is that replies from more teachers should have been used. The author believes that additional returns from a wider area would have but slightly modified his results; but if they had been obtained, interesting comparisons between states and between groups of teachers could have been made. These criticisms were foreseen. That they were not met was due (1) to the inability of some to secure the answers in time for use, and (2) to the impossibility of any single individual handling tens of thousands of them.

The topic is so big, the difficulties of securing sufficiently reliable information so numerous, the expense so great, the labor involved in working up the material so tedious, that the two criticisms could not be fully met. Hundreds of hours of patient labor were expended on the 5,215 cases used. This study must be considered as a beginning—a mere introduction to the field. Other studies are needed and until they are made perfectly safe conclusions cannot be derived.



## CHAPTER II

### GROUP RELATIONSHIPS

#### RESTRICTION OF THE TOPIC

The difficulties mentioned in the introductory chapter should not deter the serious student of education from attempting to discover and reduce to measurement certain characteristics of the teaching population that must affect its general efficiency. So far with very few exceptions these characteristics have been described on the basis of common observation. Articles laying claim to scientific accuracy that make use only of mere opinion often lead to the gravest sort of misconceptions. The material used in this study is based upon facts given by the teachers themselves.

The kind of people we have in teaching necessarily affects the kind of teaching we get. Differences in race must make a vast difference in customs, traditions, moral and religious ideals, language habits, and originality. Differences due to social class, to economic station, to intellectual maturity, to academic and professional training, and the like, must likewise be important factors affecting public opinion of the merits of the teacher and of his work.

Perhaps the criticism uttered by leaders in other lines of work, that teachers as a class are not leaders, that they are narrow, lacking in originality and in the capacity for large things, may not be a wholly misplaced and unfounded criticism. If we knew the class of people which is contributing the teachers, its fecundity, its ambitions and its outlook, its possibilities for refinement, for culture, and for personal improvement, we could, with the aid of modern science, tell something of the intellectual grade of people we are getting. If we knew the motive that impels teachers to choose it as a vocation, the preparation they make for it, and their recognition of its opportunities for social service, we would have some measure of how far there is a

craft-spirit, a spirit of professional ethics dominating the body of workers. As it is, we talk about teachers and teaching in terms of what ought to be, without really knowing what is.

One reformer says, "No one should be permitted to teach who is not both a high school and a normal school graduate." Can this be? Certainly at present it is an unrealized ideal, and so long as economical conditions remain unchanged and we continue to get teachers from large families that earn little, it will continue to be an ideal. Another reformer urges administrators and supervisors to leave teachers to their own resources in handling the technique of teaching. But the administrator knows that this too, with most teachers, is an impossible ideal. And so around the list of reforms. The composition of the teaching population and efficiency in teaching are closely and highly related.

The general statements just made will not apply to many individuals and to some groups of teachers. The great strides in education are not made by those who must have advice and prescription, but by those who, conscious of maladjustments and possessing foresight and purpose, seek to improve the unfortunate situations. These few are the real leaders in the field.

The point is that with our over-weening desire to idealize about the kind of teachers we ought to have, we too often overlook the kind of people we really have. Progress in teaching can be secured ultimately only through two avenues: getting better teachers and making the kind we are now getting better. The former would bring quicker results, but the latter is safer and surer.

Efficiency, however, represents a multitude of qualities and of abilities, each of which is a variable. Because of its composite character it can only be measured by isolating certain of its elements and measuring them. Just as modern psychology has demonstrated that each of the so-called faculties of the mind is composed of hundreds and perhaps thousands of abilities, so the scientific study of education is demonstrating that words like efficiency are only blanket expressions that cover numerous unmeasured qualities, and that a true and proper description of such concepts involves the measuring of each of these qualities.

Teaching population like efficiency is a gross term and it is

only in a very gross sense that it can be considered as representing a homogeneous group. In coal-mining there are perhaps eight to ten different occupations; in a woolen mill, thirty; in a boot factory, forty or fifty; in the building trade there are carpenters, joiners, cabinet makers, shopfitters, and the like; in the same way teaching is differentiated into many occupations, each one having its own groups or types of workers, the groups varying as to age, salary, experience, and training. Just as culture levels exist in society in general and among the members of any race or of any nation, so they exist among the groups that represent the specialization of labor in any profession. This study cannot in every case be sufficiently refined to describe each of these groups; that remains to be done. The author has been compelled to view teachers in the mass, to speak of them as "teachers in general," and to differentiate only where it seemed feasible and his returns seemed significant.

In the chapter that follows five important factors, *viz.*, beginning age, present or true age, experience, training, and salary, have been separated and an initial attempt has been made at measuring them.

#### SECTION I. AGE OF BEGINNING TEACHERS

##### *Sex Distribution*

##### *Teaching Levels*

##### *Ten-Year Periods*

Table II reads as follows: Of the 1,178 men replying to the questionnaire, two in Indiana, two in Missouri, one in New York, and one in Pennsylvania began teaching at fifteen years of age; five in Indiana, seven in Missouri, three in New Jersey, four in New York, six in Pennsylvania, one in Tennessee, one in Texas, and two in Wisconsin began at sixteen years of age; and so on. Table III reads in exactly the same way. The heavy black figures show the total number of men or women teachers for each respective beginning age. The totals at the bottom of each column indicate the number replying from the respective states.

Of the men in the thirty-year-old group, one in Kansas began teaching at thirty-two, and one in Georgia at thirty-eight. Men now teaching began teaching all the way from fifteen to thirty-eight years of age. Although the eighteenth year is the one about which the cases cluster, the median beginning age is 19.88

years. This means that there are just as many men who began teaching at 19.87 years of age or less as there are who began teaching at 19.89 years of age or more. Fifty per cent of all the men begin teaching between the ages of 17.96 years and 21.80 years.

TABLE II  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO BEGINNING AGE

Age	Ida.	Ill.	Ind.	Ga.	Ida.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
15			2										1					6	.5
16			5						7				4	6				20	2.5
17	4	25	23	3		1	4	2	11			10	3	26		1	2	101	8.5
18	10	25	70	3	2	2	2	1	23		1	16	37	45		1	3	254	21.6
19		25	76	6			1	15	1	17		13	20	28			11	218	18.5
20		15	79	2		9	11	1	22			17	17	17			5	202	17.2
21		15	61	1			13		9		1	14	14	16			2	154	13.1
22		5	27	1		1	13		12	2		5	6	7			1	76	6.5
23		4	15	1			4		3			3	5	6				54	4.5
24		1	8	1		1	4		5		1	3	5	5			1	34	2.8
25		1	5	1		2	2		3				4	4				21	1.8
26		1	1	1				1	1				1	1				9	.8
27		1	1					1	1			1	1					5	.5
28		1	2					1				1		1				6	.5
29				1		1												3	.3
30	1	1	2	1		1												6	.5
	42	80	379	21	2	29	58	10	114	5	4	86	120	159	22	17	30	1178	

TABLE III  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO BEGINNING AGE

Age	Ida.	Ill.	Ind.	Ga.	Ida.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
15			3				2	2	4		2	2	1	1				17	.4
16	2	3	14	3	3	4	4	2	10		5	12	31	16	2	2	8	116	2.9
17	10	70	56	8	11	8	29	12	46		13	41	23	36	9	2	26	407	9.9
18	39	90	146	18	31	34	136	21	71	11	7	149	227	85	27	16	25	1133	28.1
19	22	62	137	13	18	23	115	27	53	10	11	119	159	62	23	13	14	881	21.8
20	18	27	116	13	6	18	77	20	54	3	10	109	123	29	23	5	11	662	16.4
21	9	15	56	7	9	8	29	7	33	3	6	64	94	11	16	3	3	373	9.3
22	2	14	34	6	1	5	20	5	9	3	1	33	47	10	4	2	1	190	4.9
23	1	5	14	1	3	4	7	2	6	3	1	22	20	3	2	2	1	97	2.4
24	1		14	2	1		5	1	7		1	10	12	1	4			60	1.5
25		2	8	2		1	1		3			3	5	1				25	.6
26	1	1	2	2			3		1			3	3					10	.4
27			3				2		4			2				1		12	.3
28			1						3			1				1		8	.2
29			2				2					3		1				9	.2
30			1				1				1	2			2	1		10	.2
Above 30	1		3	2			3	1	1			4						15	.4
	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037	

Of the women in the thirty-year-old group, one in Idaho began at thirty-four; three in Indiana respectively at thirty-one, thirty-three, and thirty-four; two in Georgia respectively at thirty-two and thirty-five; three in Maryland respectively at thirty-one, thirty-four, and thirty-six; one in Minnesota at thirty-four; one

in Missouri at thirty-five; and of the four in New Jersey, two began at thirty-five, one at thirty-seven, and one at forty-five. Of those in the fifteen-year-old group, one in New Hampshire began at fourteen. The range, therefore, is from fourteen to forty-five. It is more clearly the fashion with women to begin at eighteen than it is with men. The median beginning age for women is 19.38 years, exactly one-half year younger than it is for men. As many women begin teaching at 19.37 years of age or less as begin at 19.39 years of age or more. Fifty per cent of all the women begin between the ages of 18.22 years and 20.54 years.

The differences among states that are in the same section of the country geographically (in some cases contiguous to each other) are so great as not to permit of a grouping upon the basis of location. These differences are probably due to differences in legislation secured by a few leaders rather than to extreme differences in population.

*Men and Women Compared.* Among both sexes there is a decided tendency for the cases to center around 18. Full 100 per cent of the men are contained within the range limits for the women. The variability of the two sexes is not the same, the women being only 64 per cent as variable as the men. The median beginning age of the men is reached or exceeded by 39 per cent of the women, while 59 per cent of the men reach or exceed the beginning age reached or exceeded by 50 per cent of the women. Roughly 58 per cent of the men and 62 per cent of the women begin teaching between 18 and 20. In this connection it is interesting to note that the median age of normal school students—the population preparing for teaching—is 19 and that 85 per cent are between 17 and 21.

Although it does not explain the forces that have been at work determining the character of the teaching population during the last thirty-five years, still the natural history of these 5,215 individuals shows that selection has not operated in the same way in all places nor at all times. This fact, although it will become more evident with succeeding comparisons, is revealed when the two sexes are separated into ten-year periods according to the age when they began teaching. This separation is found in Tables IV and V, which are summaries of ten other tables, less general, compiled from one hundred and sev-

enty tables of the sexes divided into ten-year periods according to states.

These preliminary tables disclose a few important facts. In Illinois, the median beginning age of the thirty- to thirty-nine-year-old group is 18.8 years; for Indiana, 19.78 years; for Maryland, 19.41 years; for Missouri, 20.68 years; for New Jersey, 19.55 years; for New York, 19.50 years; and for Pennsylvania, 18.77 years.

*Distribution Showing Beginning Age of Teachers in Ten-Year Periods*

TABLE IV						TABLE V					
PRESENT AGE: MEN						PRESENT AGE: WOMEN					
Begin- ning age	50 years and over	40-49	30-39	20-29	Un- der 20	50 years and over	40-49	30-39	20-29	Un- der 20	
15	2	1	1	1	1	5	4	5	1	1	
16	6	9	6	7	5	11	19	41	33	10	
17	7	15	21	44	7	13	33	81	200	80	
18	10	18	52	113	56	22	41	116	662	237	
19	11	28	55	111	13	12	36	129	616	88	
20	19	29	56	100		13	23	119	506		
21	11	24	42	74		2	16	65	298		
22	12	8	24	31		5	12	35	148		
23	2	9	19	22		1	7	32	56		
24	3	5	14	12		1	8	27	23		
25	3	3	11	4		1	5	13	7		
26	1	2	5	2			2	8	8		
27			3	2			2	7	1		
28	1	1	2	3			1	7	1		
29		1	1	1		2	2	5			
30		2	2			2		6			
Above 30		1				6	3	5			
Total	88	157	314	527	92	96	214	751	2560	416	
Median	20.42	20.24	20.21	19.89	18.41	18.88	18.29	19.64	19.62	18.49	
Quartile	1.6	1.5	1.74	1.3	.41	1.53	1.67	1.52	1.09	.43	

The median beginning age of the twenty- to twenty-nine-year-old group in Illinois, Georgia, Iowa, Kansas, Maryland, Pennsylvania, Texas, and Wisconsin falls below the median beginning age for women teachers in general. The central tendency of this group in each of the other states is above the central tendency of teachers in general.

In every state the central tendency for women under twenty falls in the eighteenth year.

Apparently Illinois, Maryland, and Pennsylvania have persisted for the last twenty years in recruiting their teaching force from young women who were considerably below the beginning age of women teachers in general. During this same time Indiana and Missouri have engaged teachers who were older than women teachers in general. New York and New Jersey have both raised the entering age within the last ten years until it has passed above the general age. The returns from the other states would not justify safe conclusions upon this point.

A comparison of men and women shows that of those now remaining, the men started a little younger fifteen years ago in Indiana only; that five years ago men started nearly half a year later than women in Illinois, Indiana, Maryland, Missouri, New York, and Pennsylvania. Sufficient returns from other states would probably show a similar situation.

For all of the groups above twenty the range is practically the same. The most important fact shown by Table IV is the constant and regular decline in the beginning age of men, it being at present exactly two years less than it was for those now remaining who began thirty years ago. There is considerable danger, if not error, in comparing old teachers with young teachers in this way, as selection has affected the groups entirely differently. It is barely possible that if one had all the men who began thirty years ago, he would find that their beginning age was the same as it is today. One is only justified in saying that of those who remained in teaching for this period the age of beginning was two years above what it is today.

Why these have survived affords a field for interesting speculation. It may be that they are a lot of incompetents whom the inertia of the layman has permitted to survive. This seems hardly probable. It may be that they had peculiar and extensive training. This will come out later. The common opinion is that all teachers who commenced a quarter or more of a century ago must have been younger than those now starting, as with the raising of the standard for admission in this time there has been a corresponding raising of the age of admission. Either men are beginning younger in the face of increased professional requirements, or the older men are retained with the passing of time because of some inherent strengths they possess.

Maturity in teaching undoubtedly counted for more twenty-five and thirty years ago than it does today. Boys went to school more intermittently then than now. Farming was the principal occupation, as it still is but decreasingly so, and because of its hardships, due to a lack of machinery and labor-saving devices, boys were often compelled to extend their schooling up through the eighth grade by going a few months in the winter over many years. It may have been that the character of the discipline needed and demanded by patrons required men of physical strength as well as of intellectual maturity. On the other hand, opportunities for the training of teachers have increased wonderfully in the last three decades. The public high school which now exists in every community has become the academic training school for young teachers. Professional training schools have also increased. Adequate training for beginning teachers, even though the standards have been raised, can be secured at a much earlier age now than formerly.

Women show a somewhat different history. There is no gradual decline in the beginning age from the older to the younger age groups. It seems that approximately twenty years ago forces must have been at work that demanded older people, or else the older people who entered then and during the next decade, have for some inexplicable reason survived. Other data are needed before the correct explanation can be given.

Table VI is an attempt to find the relation of the place of beginning to beginning age.

TABLE VI  
MEDIAN AND VARIABILITIES

	Men			Women		
	Rural schools	Town schools	City schools	Rural schools	Town schools	City schools
Range . . . . .	15 to 30	16 to 27	17 to 32	14 to 45	19 to 36	15 to 37
Median . . . . .	19.76	20.34	20.68	19.00	20.05	20.04
Quartile . . . . .	1.35	1.72	1.93	1.11	1.41	1.31
Percentages of women reaching or exceeding median for men . . . . .				.47	.47	.45
Percentage of entire number . . . . .	.83	.13	.4	.68	.18	.14



On each level the range is greater for women than it is for men. The mid-most man on each level is slightly older than the mid-most woman. The variability for men increases from level to level; for women the variability for both rural and city teachers is less than for town teachers. The percentage of the entire number starting on each of the levels sheds some very interesting light, when compared with the total number who are now upon each level, upon the problem of apprenticeship in teaching. Of the 1,178 men, 48.1 per cent are at the present time teaching in the country, but 83 per cent of them began there; 35.7 are teaching in towns and villages, but only 13 per cent of them started there; 16.2 per cent are in cities, but only 4 per cent of them commenced there. Of the 68 per cent of the 4,037 women who started in the country, but 41.6 per cent have remained there; 18 per cent began in towns and villages, but 32.6 per cent are teaching upon this level now; and although only 14 per cent of them began their careers in cities, 25.8 per cent are teaching in cities. Apparently the raw recruit gets his or her initial experience in the rural or semi-urban schools.

## SECTION II. THE TRUE AGE OF TEACHERS

### *Sex Distribution*

#### *According to Teaching Levels*

The second question that teachers were asked to answer was "Age at nearest birthday." As these answers were collected between the middle of August and the middle of December "Present Age" does not necessarily mean that the birthday fell within these limits; it may date back to the middle of March or forward to June; but the error at one end probably balances that at the other, and the returns give as correct a statement of the present or true or calendar age as could be secured without getting the exact birthday.

In calculating the median, one is compelled to deal with ages as he does with abilities in mental and social measurements. Any given age, say 18, does not mean 18 flat, nor from 18 to 19, but from 17.5 to 18.5; 19 means from 18.5 to 19.5, and so on.

The median age of men teachers is 29.05 and the quartile is 7.40. This means that 50 per cent of the men teachers are between 21.65 and 36.45 years old. There is no one age about

which all of the ages cluster. If one were compelled to choose, he probably would choose somewhere between 18 to 23, probably 21. The decline is noticeable and gradual from 25 on. The range is from 17 to 71. One teacher answering from Missouri is 71, and one from Maryland is 69.

The median age of the women is 24.1 years, and the variability is 4.21 years. No mode is clearly evident in the totals or in the frequencies of any of the states, but if one were com-

TABLE VII  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO THEIR PRESENT AGE

Age	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent	
17			1						3					5			1	10	.9	
18			4						4				4	9		1	4	28	2.4	
19	1	5	11		1	2		1	7			1	10	9	1		4	53	4.5	
20	2	9	12			2	1		7				5	9			6	58	4.9	
21	3	7	21			4			11			4	3	9		3	2	67	5.7	
22		5	16	2			3		11			1	7	9	1		1	56	4.8	
23	2	3	24	1		2	1		8			4	7	7			1	60	5.1	
24	1	3	26			1	3		5		1	1	5	3				48	4.1	
25	2	10	19	1		2	3	1	6			3	5	6	2			61	5.2	
26	3	3	23	1		1	1		3	2		5	4	6				49	4.2	
27	4	4	17			1	3		4			3	7	5			2	49	4.2	
28	2	3	11			2	1	1	3	1		3	5	4	1			39	3.3	
29	1	1	14	1	1	3	1	1	3			1		7	2	3		40	3.4	
30	1	5	12			2		1	3		1	1	2	1	2			32	2.7	
31		2	9	1			2	1	1				4	5		1		26	2.3	
32	1	1	19			1	2	1	4			3	3	7		1	1	45	3.8	
33		1	16	1		1	3		2			2	6	7			1	39	3.3	
34	1	2	10			1	0	1	2				6	1	1		1	28	2.4	
35	6	1	18	1		1	1		2				8	3			1	41	3.5	
36	1	2	5	2					4			3	2	7				31	2.7	
37	1		5	1							1	2	3	4	2			19	1.6	
38	1	1	2						3			3	3	4	3	1		27	2.3	
39	1	2	9			1	2		1			2	1	5	1	1		26	2.3	
40	1	1	6			1	1		1			3	4	1	2			20	1.7	
41	1		6	1		1			4			4	3			1		21	1.8	
42		1	11				3		3				1	1	1	1		22	1.9	
43			3	1			1	1				3		2				11	.9	
44			7				1		1			2	2	2	1			16	1.4	
45	2		3	2		1		1				1	1	4		2		17	1.5	
46		2	7	1			3		1		1	1	2					10	1.0	
47			6				1			1		2		2				12	1.1	
48	2		1	2					1			1		4			1	12	1.1	
49			7						1	1		1	1					7	.6	
50	1	1	1				3					2	3	2		2		15	1.3	
51		1	3						2			2		1				9	.8	
52	1		1			1	1					1	1	3				9	.8	
53		1	5	1					1			1		1		1		10	.9	
54		1					1		1			2		2	1			8	.7	
55			1									4	1	1				7	.6	
56			1									2						3	.3	
57							1					1				1		3	.3	
58			3				1					1		1			1	7	.6	
59												1			1			2	.2	
60			1				2					1	1					5	.5	
61	1											1	1					2	.2	
62									1			1				1		3	.3	
63		1										1						2	.2	
64												1	1					2	.2	
65												1	1							
Above 65							1		1									2	.2	
	42	80	379	21	2	29	58	10	114	5	4	86	120	159	22	17	30	1178		

**TABLE VIII**  
**DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO PRESENT AGE**

Age	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
17		7	1			1			7									22	.6
18	5	21	10			5			11	1	1		24	11	1			124	3.1
19	3	16	27		5	14	10	9	24		3	2	28	42	20	1	15	269	6.7
20	6	36	43		5	11	38	7	34	1	1	1	36	70	22	10	8	327	8.1
21	20	30	45		10	12	52	7	28	2			52	81	27	13	15	395	9.8
22	13	31	49		2	12	34	11	31	4	4		67	73	26	8	15	379	9.4
23	12	24	42		4	16	25	5	22	2	2		60	59	22	6	12	335	8.3
24	6	22	47		4	8	25	4	19	2	3		43	63	16	4	12	259	6.4
25	5	14	42		7	2	29	7	10	4	1		35	57	10	2	4	204	5.1
26	3	4	31		4	2	20	6	13				31	49	10	3		150	3.7
27	4	0	24		3	1	10	6	13				25	18	4	4		130	3.2
28	2	7	10		5		11	6	9				21	20	3	1		111	2.7
29	4	4	17		5		12	3	13	1	1		23	23	7	1		135	3.3
30	4	8	24		5	2	12	3	13				17	20	12	7	1	102	2.6
31	2	2	27				10		8		2		17	16	4	4		102	2.6
32	1	1	18		3	1	10	4	7				8	10	4	4		88	2.2
33	3	2	9		6		10	2	9			3	17	11	3	1		84	2.1
34	5	10	2		5	1	14	2	2	1	3		10	13	1	2		71	1.8
35	3	17	3		1	1	13	1	4				7	15	4	1		71	1.8
36	1	4	7		2		13	2	3				4	6	4	3	1	47	1.2
37	2	1	7		2	1	6	1	1		1		5	8	1	2		41	1.1
38	2	4	10		1	3	8	2	5				9	11	1	2		61	1.5
39	2	2	9				9	1	3				10	3				41	1.1
40	1	3	11		4	4	7		2				6	9	3			51	1.3
41	1	1	4		1	2	1						1	4				16	.4
42	1		5			1	0		2	1			1	2	1	1		25	.6
43	1	2	2				1	2	2			2	1	3				17	.4
44		1					4	1	1				3	3		1		16	.4
45			7		1	1	2	1	1				10	3	3			28	.7
46		1	0				3		2									18	.4
47			6				1		3	1	1		6	1		2		22	.5
48		1	4		3		2		1				4	2				15	.4
49			5								1		1	1				8	.2
50		1	3			1	6	2			1		2			3		21	.5
51		1	2				2						2		1	1		9	.2
52							3											4	.2
53			3				2						1					7	.2
54			1					1					1	2	1			7	.2
55		1	3			1	1						1	1				7	.2
56	1		2			1	2						2			1		9	.2
57					2		1						4	1		1		9	.2
58							1						1					3	.1
59			1	1					1				1	1				5	.1
60																			
61																			
62		1															1	1	
63			1										1					2	.3
64																		2	
65		1				1							1	1				4	
Above 65			1										1	1				3	
	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037	

pelled to choose he would probably choose 21. The range is from 17 to 66, Georgia, New Jersey, and New York each reporting one teacher who is 66. The percentage of women who reach the 50 percentile of men is 29.

It is obvious that the curves for both men and women as to age are greatly skewed. There is a sudden rise and a long and gradual fall.

By casting the ages into five-year periods, the youthfulness of

the teachers stands out in relief, 7.7 per cent of the men being between 16 and 19, 24.5 per cent between 20 and 24, and 20.2 per cent between 25 and 29, which gives 52.9 per cent under 30. Of the women 10.2 per cent are between 16 and 19, 42.4 per cent between 20 and 24, 21.2 per cent between 25 and 29, with 73.8 per cent under 30. In round numbers one-half of the men and two-thirds of the women are under 30 years of age. Every third man and every second woman is under 25 years of age. Considering teachers in general 56 per cent are 25 years of age or under.

TABLE IX  
THE MEDIAN AGE AND VARIABILITY FOR EACH LEVEL

	Median		Higher		Variability	
	Men	Women	Men	Women	Men	Women
Rural schools..	22.84	21.42	1.42		6.35	2.23
Town Schools..	32.68	25.76	6.92		6.56	4.07
City schools...	34.60	27.45	7.15		3.02	5.05

This table reads: "The median age of men in the rural schools is 22.84 years; of women, 21.42 years. The median man in the rural schools is 1.42 years older than the median woman. The variability for rural school men is 6.35 years, for rural school women 2.23 years." The conclusions to be drawn from the table are (1) men are older on each level than the women, the difference increasing as they pass toward the cities; (2) men in towns are 9.84 years older than men in rural districts, and men in cities are 1.98 years older than men in towns; (3) women in towns are 4.34 years older than women in rural districts, and women in cities are 1.69 years older than women in towns; (4) the variability for men is higher than that of women for both rural and town, but lower for city teachers.

### SECTION III. YEARS OF SERVICE

#### *Sex Distribution*

#### *According to Teaching Levels*

#### *In Cities of 8,000 Inhabitants and Over*

#### *In Relation to the Massing of Society*

The median number of years men teachers have taught, irrespective of location and of position, is seven; for women it is

four. In other words there are as many men who have taught six years or less as there are those who have taught eight years or more, and as many women who have taught three years or less as have taught five years or more. The median experience for public high-school men is eight, and for public high-school women six.<sup>1</sup> Fifty per cent of the men in the public schools have taught between three and fourteen years, and an equal percentage of the women have taught between one and nine years.

TABLE X  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO ACTUAL NUMBER  
OF YEARS TAUGHT

Years taught	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent	
0	3	13	26		1	0	1	1	8			3	17	24			5	111	9.4	
1	3	4	28			1	1	2	15		1	3	10	0	1	2	2	88	7.5	
2	4	8	22	1		2	4	13	13			3	6	11	1		4	83	7.1	
3	1	8	21	2		1	3	14	14			5	8	14		1	1	79	6.7	
4	2	5	26	1		3	2	11	11			2	10	11	2	2	1	78	6.6	
5	4	5	20			2	2	4	4			1	8	7	1		2	65	5.5	
6	2	5	28	2		2	1	3	4	1		5	8	7	1	2	3	74	6.3	
7		7	18					7	7		2	2	5	1	2		3	44	3.8	
8	3	3	18		1	4	3	1	4			1	2	5	2	1	1	48	4.1	
9	1	4	21			1		5	5			3	3	8		1		46	3.9	
10	2		15	2			4	3	3	1		2	3	4				37	3.2	
11		2	8			1	2	1	1			1	1	2	1		1	10	1.6	
12	3	2	10	1			4	2	2			5	4	6	1		1	48	4.1	
13		2	9	1			3	2	2		1	4	2	2		1		32	2.7	
14	3	1	0	4		1		4	4			5	7	7	1			42	3.6	
15	1	1	10	1		1	3	1	2	1		3	5	1	1			31	2.7	
16		2	4				2	2	2			2	1	2		1	1	17	1.5	
17	2	1	5	1				1	1			1	2	3	1			17	1.5	
18	1	1	6	1			1	2	2			1	2	5	1	1		22	1.9	
19		1	6				1	2	2			1	1	2	1			15	1.3	
20	2		8	1			1	1	1			1	2	4	1	1	1	22	1.9	
21			2				2					3	1	1	1		1	11	.9	
22	2		7				1	1	1			1	1	1				13	1.1	
23			2	1			1		1			3		3				11	.9	
24		1	5				1					1	1	2				12	1.1	
25	2	1	3	1			4			2		4		3		1		19	1.6	
26		1	7						2			2		3	1			16	1.4	
27			2				2		1			1		1			1	8	.7	
28			6				1			2				1				10	.9	
29			2				1					1	1	1		1		6	.5	
30		1	2	1		1	1		1			1	1	3	1			12	1.1	
31			1										1	2				5	.4	
32							1					2						5	.5	
33	1											1					1	3	.3	
34			1				1					2						4	.4	
35			1						1			2		1		1		6	.5	
36							1					2		1				4	.4	
37							1					1	1	1	1			4	.4	
38							1					1				1		2	.2	
39																	1	1	.1	
40								1					2					8	.7	
		43	42				42						41							
		1	1				1						1							
			44																	
			1																	
	42	80	370	21	2	20	58	10	114	5	4	86	120	159	22	17	30	1178		

<sup>1</sup> Thorndike, *The Teaching Staff of Secondary Schools*, Bureau of Education Bulletin, 1909, No. 4.

TABLE XI  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO ACTUAL  
NUMBER OF YEARS TAUGHT

Years taught	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
0	17	52	47	3	12	16	32	15	43	4	4	57	106	40	12	8	14	492	12.2
1	14	55	60	5	7	26	30	8	46	11	8	74	120	34	8	11	22	539	13.3
2	13	39	63	4	6	12	50	10	34	5	3	77	90	20	12	4	14	450	11.2
3	8	28	59	7	7	7	24	8	26	3	6	41	69	20	11	9	0	342	8.5
4	10	20	50	9	7	15	28	7	26	3	3	44	63	24	5	3	8	325	8.1
5	9	21	43	6	5	0	22	8	21	0	0	43	42	17	7	3	3	262	6.5
6	7	16	39	9	3	4	33	4	20	4	4	28	45	13	4	5	7	245	6.1
7	5	7	32	4	1	5	24	5	14	1	2	25	31	12	11	2	5	180	4.6
8	6	6	22	1	2	3	21	8	12	1	1	19	29	11	5	1	1	147	3.7
9	4	4	13	4	1	1	21	3	10	5	5	17	14	7	4	2	2	110	2.7
10	2	5	28	4	2	3	22	3	7	3	3	24	29	11	7	2	1	153	3.8
11	4	3	8	3	2	2	9	1	5	1	1	9	11	4	4	1	1	60	1.6
12	3	18	2	2	2	2	15	2	6	1	1	19	14	7	4	1	1	93	2.3
13	1	10	2	4	1	1	9	2	5	2	2	9	11	9	1	1	1	67	1.7
14	4	12	3	1	1	6	2	6	1	3	11	9	3	7	1	1	2	71	1.8
15	1	5	14	2	3	1	8	2	7	1	1	9	9	1	1	1	2	65	1.6
16	1	2	10	2	1	1	9	1	1	1	1	5	7	3	1	1	1	44	1.1
17	2	5	3	3	1	1	10	2	1	1	1	5	3	4	1	1	1	38	.9
18	2	9	4	2	1	1	9	2	2	1	1	6	8	1	1	1	1	44	1.1
19	2	4	1	1	1	1	3	1	1	1	1	4	5	1	1	1	1	22	.5
20	2	3	10	2	1	1	9	2	2	1	1	11	6	1	1	1	1	47	1.2
21	1	1	9	1	1	1	4	1	1	1	1	12	2	1	1	1	1	35	.9
22	2	7	1	1	2	1	5	1	2	2	2	3	2	2	2	2	2	27	.7
23	1	1	1	1	1	1	5	1	1	1	1	2	5	2	2	2	2	16	.4
24	1	2	1	1	1	1	6	1	1	1	1	2	3	1	1	1	1	15	.4
25	1	4	1	1	1	1	5	3	2	1	1	2	2	1	1	1	1	23	.6
26	1	5	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	16	.4
27	1	4	1	1	1	1	3	1	1	1	1	2	1	2	1	1	1	13	.3
28	1	4	3	1	1	1	2	1	1	1	1	4	1	1	1	1	1	16	.4
29	1	5	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	10	.2
30	1	3	4	1	1	1	5	3	1	1	1	3	1	1	1	1	1	24	.6
31	1	3	4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	8	.2
32	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	4	.1
33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	.1
34	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	3	.1
35	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	.1
36	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	.1
37	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	.6
38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	.3
39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	.3
40	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	.2
	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037	

About five men and 1.5 women in a hundred have had more than thirty or more years of experience. About one-third of the women have taught as long as the median man, while only three-elevenths of the men have taught as long as the median woman.

From this table one cannot say that the number of years one teaches in the country is two; he can only say that those now teaching in the country have a median experience of two years. The same correction must be kept in mind in referring to town and city teachers. This table corroborates the inference made

TABLE XII  
 MEDIAN EXPERIENCE AND VARIABILITY FOR EACH LEVEL

	Median		Variability			
	Men	Women	Men		Women	
			25 P	75 P	25 P	75 P
Rural schools . . . . .	2	2	1	4	1	5
Town schools . . . . .	12	6	7	14	3	11
City schools . . . . .	12	7	6	19	4	13

in Table VI that the lower levels, particularly the rural schools, are used as the training ground for many young teachers. This, of course, will not apply to those cities that support schools for the training of their own teachers, but even in them there is a constant importation of talent. A comparison of this table with Tables X and XI shows that it is the rural teachers proper who reduce the median experience for both men and women teachers in general. Another fact of importance is that although the variability for both sexes increases from level to level, its upper limits are higher for women on the rural school plane but lower on both of the others.

The greater permanency of men in both towns and cities is no doubt due to the executive character of their work, and to the increased compensation that accompanies it. Women shift more rapidly from level to level, because teaching positions which they are qualified to fill are far more numerous than administrative positions. Practically all of the graded school positions have been preempted by women; men still survive in public school work as "managing" or executive officers.

The most elaborate attempt to determine the length of service of teachers in the United States was made by Commissioner Harris in April and May, 1904, the results of which were published in the Annual Report of the Department of the Interior, 1904, on pages 1,277 to 1,301 inclusive. Information was collected from teachers in 398 cities of 8,000 inhabitants and over. The first and second tables show the length of service of male and female teachers respectively regardless of where the service has been performed; the third table summarizes these facts regardless of sex; the fourth and fifth tables give the length of service for each of the sexes in their present location; and the sixth table summarizes without regard to sex; the seventh table

gives the total length of service of teachers in twenty-seven of the thirty-nine cities in the United States of 100,000 inhabitants and over, regardless of where the service has been performed; and the eighth and last table shows their service in their present location in twenty-nine of the thirty-nine cities of 100,000 inhabitants and over. The Commissioner did not attempt an interpretation of the facts. Reference is made to these tables here because it is believed that conditions in regard to tenure are not essentially different today in cities of this size. Any one who is interested in detailed distributions according to geographical location can secure the information he desires from Commissioner Harris's tables.

From his total distributions the following results have been computed:

TABLE XIII  
MEDIAN SERVICE

	Regardless of place	Regardless of sex	In present place	Regardless of sex
Cities of 8,000 and over.	..	9	..	7
Men.....	11	..	7	..
Woman.....	9	..	7	..
Cities of 100,000 and over	10	..	8	..

The difference between these results which are based upon more than 50,000 reports, when compared with the results secured from the 1,248 reports from city teachers (192 men, 1,056 women) used in this study, is not great. It must be remembered that Dr. Harris included in his totals the teachers of twenty-nine cities of over 100,000 inhabitants, while with two exceptions these have been excluded from this report. My figures show that the median city school man has taught twelve years in the city, Dr. Harris got eleven; my figures show that the median city school woman has taught seven years, Dr. Harris got nine. Any comparison between these two reports must be made very cautiously. There is a possibility that the difference in the statistics for two sexes respectively indicates that the men who are "persisting" in teaching are staying longer, while women are becoming more transient. If this were true it would mean greater permanency in leadership; but in view of the still growing feminization of teaching, the transiency of women, if increasing, would mean a reduction of the possibili-



ties of the establishment of a profession. These hypothetical considerations need further consideration and investigation before a safe answer can be given. Dr. Harris found the median service of teachers regardless of sex to be nine; my returns show it to be five. If my returns included more teachers from larger cities the two reports would be closer together but would never exactly agree, as Dr. Harris's returns are from a select group.

The other fact of importance deducible from the Commissioner's Report is that service of men teachers in any given place is four years less than their service in general, and that the service of women teachers in any given place is two years less than their service in general. This would seem to indicate that the mobility of city teachers is less than is commonly supposed, and that it is the same for both sexes.

Commissioner Harris's report shows that 50 per cent of all the male teachers in cities of 8,000 inhabitants and over have taught 13 years or less, that 53 per cent of the female teachers have taught 10 years or less, that 10 per cent of the men and 4.5 per cent of the women have taught 30 years or more, that 3.5 per cent of the men and .6 per cent of the women have taught 40 years or more. These figures confirm the commonly accepted opinion that men teachers in cities remain longer in teaching than women. As has already been pointed out this is no doubt due to a difference in position.

That the length of tenure increases as we proceed toward a dense society as it is found in larger cities is made clear by the following table:

TABLE XIV  
LENGTH OF SERVICE REGARDLESS OF SEX  
Percentile Distribution

Years	Rural	Towns	Cities of 8,000 and over	Cities of 100,000 and over
5 yrs. or less.....	77.233	44.241	44.649	28.622
6-10.....	13.022	26.091	22.456	23.858
11-15.....	4.845	14.080	14.170	17.370
16-20.....	2.469	7.471	8.023	11.585
21-25.....	1.257	5.172	4.678	7.475
26-30.....	.942	2.586	2.992	5.363
31-35.....	.448	1.193	1.904	3.148
36-40 +.....	.026	1.034	1.280	2.578

(Columns 1 and 2 are based upon my returns, columns 3 and 4 upon Dr. Harris's).

## SECTION IV. TRAINING OF TEACHERS BEYOND THE ELEMENTARY SCHOOLS

*Sex Distribution**Ten-Year Periods**By Levels**Training Required by States*

TABLE XV

DISTRIBUTION OF MEN TEACHERS ACCORDING TO NUMBER OF YEARS OF TRAINING BEYOND THE ELEMENTARY SCHOOL

Years	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
0	4	6	23			5	5	1	21			23	8	33		4	3	136	11.6
1	1		2						1					2				6	.5
2			3						2				1	2				8	.7
3			3						2					5				8	.7
4	4	10	35				3		19			2	3	12		2	3	93	7.9
5	7	21	40			7	7		10	1		8	7	25		2	14	158	13.4
6	5	15	50	3	1	5	11	1	12	1	1	8	7	25	3	1	6	152	12.9
7	4	4	89	3		4	5	1	15		1	16	36	24	5	4	2	210	17.8
8	6	5	46	7		3	9		5	1		5	15	17	5	2		110	11.0
9	3	3	30	5		2	8	2	4	1		7	15	9	3			94	7.9
10	3	3	25	1		1	6	1	3			4	7	2	4	1	1	68	5.8
11	2	2	26	1	1		4	3	2	1	2	7	12	3	1		1	84	7.2
12	1	1	4				1	1	1			1	3	1				17	1.5
13	1		3			2	2		1			3	4	1				17	1.5
												1	1			1		5	.5
												1	1					2	.2
				1								1	1					1	.1
	42	80	379	21	2	24	58	10	114	5	4	86	120	159	22	17	30	1178	

TABLE XVI

DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO NUMBER OF YEARS OF TRAINING BEYOND THE ELEMENTARY SCHOOL

Years	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
0	5	15	8	5	2	13	39	2	36		1	53	33	20	6	2	9	258	6.4
1		2	3		3	1		1	5	1				2				18	.4
2		5	1					1	1					1				8	.2
3		1	1					1	4					2	1			14	.3
4	8	21	19	3	5	16	13	3	29	3	1	15	40	14	1	5	16	212	5.2
5	11	48	10	10	10	10	48	10	27	1	5	37	65	24	9	5	10	366	8.3
6	13	37	36	11	31	15	144	9	27	4	3	55	112	40	25	9	5	585	14.5
7	18	42	216	13	5	33	97	26	80	10	21	119	182	50	39	14	18	1037	25.7
8	4	147	13	8	8	21	11	41	3	10	71	144	50	15	8	10		620	15.5
9	20	13	84	10	6	3	39	30	24	4	15	153	103	21	8	5	5	543	13.4
10	3	7	30	2	1	2	17	2	9	5	1	40	24	5	4	2		154	3.8
11	4	7	36	4	2	3	12	4	11	2	1	30	31	1	5	1	4	158	3.9
12		1				1	2	1	6	1		5	9	1				36	.9
13			3			2			4			1	2		2			14	.3
							2		1	1		1				1		3	.2
																		4	.2
																		1	.1
	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037	

Men teachers have had from 0 to 13 years of training beyond the elementary school. The typical number is 4; Thorndike found it to be 7 for high-school men. But fifty per cent of the men have had from 2 to 5 years of education beyond the elementary school.

The length of education women teachers have had beyond the elementary school also ranges from 0 to 13 years. The median and mode as with the men, is 4. Thorndike found it to be 8 for high-school women. Considering women in general there are as many who have had three years or less of training as there are who have had five or more. Fifty per cent of the women have had between 3 and 5 years of education; their variability, therefore, is less than that of men.

Of the men 21.3 per cent and of the women 12.6 per cent have had one year or less, and 34.5 per cent of the men and 38 per cent of the women have 5 years or more of schooling beyond the elementary school.

TABLE XVII  
MEDIAN AND VARIABILITY OF TRAINING OF TEACHERS SEPARATED  
INTO TEN-YEAR PERIODS

Age	Median		Variability			
	Men	Women	Men		Women	
			25 P.	75 P.	25 P.	75 P.
50 + . . . . .	4	4	2	7	2	6
40 to 49 . . . . .	3	4	2	6	3	5
30 to 39 . . . . .	4	4	2	6	3	5
20 to 29 . . . . .	4	4	2	5	3	5
—20 . . . . .	3	4	1	4	2	4

This table reads from left to right: The median number of years of training beyond the elementary school men teachers 50 years old and over have had is 4; the median number of years of training beyond the elementary school women teachers 50 years old and over have had is 4; 50 per cent of this group of men have had from two to seven years of training and 50 per cent of the women have had from two to six years of training.

The strange fluctuation among the medians for the men leads one to doubt the trustworthiness of the returns of some of these groups. The older people have probably been more

inclined to overstate the number of years of training they have had,—a few weeks or months more likely counted a year with them than it does with the younger groups. If these answers of the men are not discounted at all, then we can be reasonably certain that society has affected the selection of men teachers in different ways at different times during the last thirty years.

The amount of training required of women for these different periods has remained constant.

The most interesting features in this table are found in the variability of the different periods. It is clearly evident that the pressure for training has been greater on the men than on the women. This is due to (1) the social demand for superior training for administrative work, (2) greater permanency of men in teaching, (3) the increased opportunities professional training offers for advancement and preferment.

The original tables from which this one was compiled showed men under 20 with no training beyond the elementary schools teaching in Missouri, New York, Pennsylvania, Texas, and Wisconsin; and women, in Illinois, Iowa, Kansas, Maryland, Missouri, New Jersey, New York, Pennsylvania, Tennessee, Texas, and Wisconsin. Of those 20 or under, 18 per cent of the women and 16 per cent of the men have had one year or less of training.

TABLE XVIII  
MEDIAN AND VARIABILITIES SHOWING TRAINING BY LEVELS

	Median		Higher		Variability			
	Men	Wom- en	Men	Wom- en	Men		Women	
					25 P.	75 P.	25 P.	75 P.
Rural schools .	3	4	..	1	2	4	2	4
Town school . .	4	4	..	..	2	6	3	6
City school . . .	6	5	1	..	4	8	3	6

This table reads, "The median number of years of training beyond the elementary schools men in the rural schools have had is 3; that is, just as many have had 2 or less as have had 4 or more; the lowest 25 per cent of the men in the rural schools have had two years or less of training, the highest 25 per cent of the men have had four or more years of training, the middle

50 per cent range from 2 to 4 years of training." The table reads in the same way for the women.

Women in the rural schools have on the average had one more year of training than the men, in towns and village the mid-most men and the mid-most women have had the same number of years of training; and in the cities men have on the average had one more year of training than the women. This means that the price of getting into teaching is higher for women, but the price in training necessary for advancement is greater for men. Men must secure additional academic or professional training to advance from level to level, but women on the average need it only to get into city schools. This difference in training needed for advancement is emphasized by the difference in the variabilities of the sex on each level.

A comparison of the results secured from the original tables from which the last two tables were compiled, supplies the following instructive facts:

TABLE XIX  
PERCENTILE DISTRIBUTIONS BY TEN-YEAR PERIODS AND BY LEVELS

	50+		40-48		30-39		20-29		—20		Rural T		Town T		City T	
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.
Percentage with no training..	14	7	8	4	9	7	10	4	16	9	16	9	10	4	4	1
With 1 yr. or less.....	24	13	20.4	7	18.9	12	18.4	10	26	18	30	15	19	8	8	27
With 3 yrs. or less.....	58	33	50	41	44	38	40.4	30	59	41	60	40	45	33	18	16.2

For each period and for each level the percentages show that more men than women are poorly trained. The high percentage of men under 20 with no more than three years of training will no doubt be decreased as they pass into the later age-groups. The men between 20 and 40 were probably no better than those beginning now, but the decrease in their percentage may be regarded as a favorable sign.

Three-fifths of the men and two-fifths of the women teaching in the rural schools have had less training than that supplied by the ordinary four years' high-school course. The dropping of the percentages from country to town to city is due to a difference in the selective agencies. Considering the matter

by and large, it is probably true that better men and better women teachers are selected by towns than by rural districts and still better are selected by cities. This does not curtail the possibility of the able young man or young woman rising from level to level; that is exactly what happens in many cases. The representatives of the different levels present wide differences in intellectual attainment, which to some extent accounts for differences in professional spirit and in general culture. Teachers of sufficient native ability to rise are attracted in most cases to the cities; but mere ability is not sufficient, training is necessary. The problem of securing well-trained, skilled teachers clearly increases in magnitude as we move away from the centers of population to the homogeneous population of agricultural communities.

TABLE XX  
MEDIAN NUMBER OF YEARS OF TRAINING BY STATES POSSESSED  
BY TEACHERS ON THE VARIOUS LEVELS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.
<i>Men</i>																	
Rural.....	3	2	4			2	3		1			3	4	2			2
Towns.....	3	4	4			4	4		4			3	6	3			3
Cities.....	6	7	6						8			6	7	5			
<i>Women</i>																	
Rural.....	4	3	4		3	3	3	4	1	4	4	4	4	3	4	4	2
Towns.....	5	4	4		3	4	3	5	4	5	5	5	5	4	4	4	4
Cities.....	6	5	5	4	3	4	4	6	5			6	6	5	4		5

This table emphasizes the general deductions already made. Its incompleteness in certain places is due to insufficient returns. Certain new facts are obvious: (1) In only two states, Indiana and New York, has the median man in the rural schools had the equivalent of a four years' high school course; (2) the median rural-school man and the median rural-school woman in Missouri have had less training than the median men and women of the other states; (3) the amount of training required of rural-school men in Illinois, Kansas, Pennsylvania, and Wisconsin is on the average but two years; (4) in nine of the states the median rural-school woman has had four years of training beyond the elementary school; (5) New York on the average requires more training for men in towns than any other

state; (6) Idaho and New Jersey place no premium upon training for men in towns, but the price is high if one expects to advance to the city; (7) New York for men and Idaho, Minnesota, Montana, New Hampshire and New York for women, on the average require more advanced training for town teachers than for rural teachers; (8) every state except Iowa, Kansas, Maryland and Tennessee require more advanced training of the median men and women of the cities than of those on the lower levels.

The low preparation requirements for men are indicative of the social desire to secure men. But in reducing the requirements for male sex and holding them up for females, it is questionable whether men are not secured of lower grade ability than women. At least it indicates that the tendency to professionalization so far as mere academic preparation is concerned is stronger on the female than on the male side. This is hopeful. In the struggle for existence between men of three years' training and women of four for the same position men must inevitably go. Man can only hope to secure a permanent foothold by additional preparation and by securing better positions which must usually be executive in character. The call for men, if there be such, should be for more able and better prepared men.

These tables in this section also show that advancement depends upon personal investment. The world invests in those who invest in themselves and the extent of the world's investment is conditioned by the extent of the individual's investment. Many who enter teaching invest little in themselves; they risk little and they gain little, but their little risk and little gain are checks upon the more rapid advance of the profession as a whole.

#### SECTION V. SALARIES

##### *Sex Distribution*

##### *Ten-Year Periods*

##### *By Levels*

Table XXI shows the range of men's salaries to be from \$150 to \$2,000 and over. The eleven listed at \$2,000 receive \$2,000 or more. If a complete census of superintendents and

TABLE XXI  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO SALARY

Salary	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
Less \$150					1				1				2	1				5	.5
150-199								2	2			1	2					10	.9
200-249	1		1					10	11			1	5		2		3	31	2.7
250-299		1	11					11	11			1	6	42	3		2	77	6.6
300		2	25			5		16	13			1	13	10	3	3	11	80	7.6
350	7	11	40					3	13			2	12	50	1	2		155	13.2
400	3	9	64			3	2	1	20			3	13	10		1	1	130	11.1
450	4	16	57			1	3	1	3			1	10	5	12	2	2	117	9.9
500	5	4	24			2	4	2	2			7	6	7			1	62	5.3
550		8	26			2	2	2	5			5	1	6	1	1		52	4.4
600	4	10	17			1	6	1	5	1		11	3	5	1	3	1	69	5.9
650	4	5	22	3		1	1	1	2	1		8	12	4				62	5.3
700	1	3	9			1	3	1	3			3	5	1			3	30	2.6
750	1		2	1		1	2	2	2	1		1	2	2			1	10	1.6
800	3		12			3	0		5	1		6	7	2	1		1	47	3.9
850	2		4	1		1		1	1			1	1	1				10	.9
900	3	1	0			1		1	2		1	2	7	2	1	2	1	33	2.8
950		1	8			1		1	1	1		2	2	1				17	1.5
1000	1	2	4	2		1	4		1		1	7	6					27	2.3
1050	1	2	1	1					1			1	2		1			13	1.1
1100	1		2	3	1	2	1	1				2	4		2			10	1.7
1150			2						3				1	1			1	8	.7
1200	1		1			1	2					1	3	1			2	12	1.1
1250		1	1	1									1		1			5	.5
1300			4									2	1		1			8	.7
1350		1		1								1	1		1			5	.5
1400							3		1			1	4					8	.7
1450			1						2			1	3		1	3		19	1.6
1500			6	2			1		2										
1550		1	1	1			1					2						6	.6
1600												2						2	.2
1650												2						2	.2
1700		1	1					1				2						5	.5
1750			1															1	.1
1800		1	1	1			3						1				1	9	.8
1850																			
1900																			
1950				3								1	2					3	.3
2000			3	1				1				1	2		1			11	.9
	42	80	379	21	2	29	58	10	114	5	4	86	120	159	22	17	30	1178	

principals were included in the returns, the upper limit would be \$10,000 for the former and perhaps \$5,000 for the latter. The median salary is \$489; that is, there are as many men who receive an annual salary of \$488 or less as there are who receives an annual salary of \$490 or more. This median salary for men in general is \$411 below the median salary of the high school men. Half the men receive a salary between \$363 and \$615 inclusive.

Table XXII shows the range of women's salaries to be from \$150 or less to \$1,800 or more. A more complete census here would extend the limits as it would with men. The median salary is \$450; that is, there are as many women who receive an annual salary of \$449 or less as there are who receive an



TABLE XXII  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO SALARY

Salary	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total	Per cent
Less \$150	5	4			26			4	3		1		33	1			1	78	1.0
150-199	4	2			3		2	1	11				32		2			57	1.4
200-249	2	15						3	33	1	1	2	4			4	12	87	2.2
250-299	7	11	15			4	20	0	32		2	8	48	74	13	3	16	268	6.6
300	8	41	45			4	10	7	52	1	2	10	145	28	9	7	20	308	9.0
350	5	43	42	5	5	30	27	6	61		22	50	133	37	12	5	12	494	12.3
400	13	79	49	7	7	30	71	19	49	4	18	80	95	26	5	12	8	572	14.2
450	13	43	61	32	14	16	36	14	27	4	11	85	93	54	15	11	12	541	13.4
500	8	15	85	12	5	16	24	13	15	1		94	58	15	10	5	3	377	9.3
550	8	11	40	0	3	3	17	11	7	5		40	25	7	0	3	1	208	5.1
600	15	8	133	7	10	11	51	4	6	6	1	62	19	4	8	1	2	438	10.8
650	15	4	32	3	13	3	2	4	2	8		30	35	1	9		1	162	4.1
700	2	6	10	4	2	3	12		4	1		32	12	1	5			94	2.3
750		3	26				2			2		38	2	1			1	65	1.6
800			25	1		1	25	2	2	1		15	8		5			85	2.1
850	1		31		2	2		3				9	2					50	1.2
900		2	7		2		1	1				4	1	1	1	1		21	.5
950		2	4		1	1	7											18	.4
1000			3			1	4	1		1					2			10	.3
1050									1									1	
1100												1						2	
1150							1											1	
1200			2	1			1	1										5	.3
1250																			
1300			1				1											2	
1350																			
1400							1											1	
1450															1			1	
1500																			
1550																			
1600																			
1650																			
1700																			
1750																			
1800																		1	
1850																			
1900																			
1950																			
2000																			
	106	189	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037	

annual salary of \$451 or more. The median salary of the women is \$39 less than the median salary of the men, and \$200 less than that of high school women. Half the women receive salaries between \$339 and \$561.

Full 100 per cent of the salaries of the women fall within the range limits of the men and 99 per cent of the salaries of the men are included in the range limits of the women. Slightly more than 56 per cent of the salaries of men are as great or greater than the salary of the median woman. Only .5 of 1 per cent of the women receive a salary of \$1,000 or more, while 14.7 per cent of the men do.

This table presents the striking fact that men in general attain their maximum salary before they are forty years of

TABLE XXIII  
MEDIAN AND VARIABILITY OF SALARIES OF TEACHERS SEPARATED  
INTO TEN-YEAR PERIODS

AGE	Median		Higher		Variability	
	Men	Women	Men	Women	Men	Women
50 + . . . . .	\$589	\$609		\$20	\$237	\$124
40 to 49 . . . .	636	543	\$93		286	127
30 to 39 . . . .	651	567	84		272	103
20 to 29 . . . .	441	443		2	144	92
—20 . . . . .	317	323		6	49	65

age, while women in general may have their salaries increased until they are fifty or past. There is less difference between the salaries of the two sexes than is commonly believed. The difference in pay is due usually to a difference in position, which means a difference in work.

The variability is greater for men for each age except for those under 20. This is what we would expect as nearly all women are teachers while men are both teachers and administrators.

TABLE XXIV  
MEDIAN AND VARIABILITIES OF SALARIES ACCORDING TO  
TEACHING LEVEL

	Median		Higher		Variability	
	Men	Women	Men	Women	Men	Women
Rural schools . . . . .	\$390	\$366	\$24		\$75	\$69
Town schools . . . . .	613	492	121		247	92
City schools . . . . .	919	591	328		304	104

Here differences in salary due to a difference in the kind of work, become pronounced. In the country schools we find "equal pay for equal work." But in the towns and cities where the labor is more highly differentiated, the difference increases as does the variability also. Men in towns receive on the average one and one-half times as much as men in the country, and men in the cities receive two and one-half times as much as men

in the country, and one and one-half times as much as men in towns. Women in towns receive one and one-half times as much as women in the country, and women in cities receive one and one-half times as much as women in the country. and one and one-fifth times as much as women in towns.

#### SECTION VI. RELATIONSHIPS

*Of Experience to Salary*

*Of Training to Salary*

*Of Age to Salary*

*Of Age to Training*

#### *Efficiency in Teaching as Determined by Length of Experience*

The salary paid teachers in general, particularly where free competition obtains, is one criterion or objective measure of their efficiency in general. Common observation and common sense teach us that in the case of numerous individuals and of certain communities and institutions, salaries cannot be regarded as true measures of efficiency. That they cannot is due: (1) to the operation of idealistic, sentimental, religious, political, blood-kin considerations; (2) to the unfair and unequal administration of municipal or commercial affairs in the distribution of moneys for the maintenance of the different forms of public protection and public service; and (3) to the lack of definite standards by which to judge teaching efficiency. Nevertheless it seems true as a general proposition that differences in salaries in a given locality in either sex must be regarded as indicative of differences in teaching efficiency; and also differences in salaries among different localities, provided the communities compared have approximately equal standards of living and are of equal wealth, and competition among teachers is equally free, indicate different community estimates of teaching efficiency.

No effort is made in the tables that follow to compare salaries in a given community or between given communities. The tables merely show what the general tendency is, to what extent salaries in general are influenced by experience. Supposing that the standards of living in the different places in this report do not differ radically, this general tendency becomes a fairly

accurate registration of the value American people set upon experience.

If a perfect correlation existed between salary and experience, each additional year of experience would be accompanied by a corresponding increase in salary, and the ratio of the increase in experience would equal the ratio of the increase in salary. If presented graphically this line representing the correlation would be rectilinear. The graph representing this relationship is found in Figure 1.

TABLE XXV

TABLE SHOWING RELATION OF EXPERIENCE OF MEN TEACHERS TO SALARY

Salary	Years of Experience																			
	0	1	2	3	4	5	6	7	8	9	10	11-12	13-14	15-19	20-24	25+				
\$150	5	2	4				1	1			1		1							
200	5	9	2	6	2	2	1				1	1				2				
250	29	12	5	7	6	3		2	2	2			3	2			4			4
300	30	13	10	6	4	4	5	2	2	3			3	2		1				2
350	13	20	14	12	14	14	8	2	5	9	4	9	2	8	11	11				
400	10	9	11	14	11	6	9	6	7	5	3	7	7	9	6	5				
450	10	7	7	5	11	5	11	5	5	4	1	8	7	11	9	12				
500	3	2	6	4	3	3	2	3	2	2	3	4	6	4	5	11				
550	1	1	4	3	3	7	2	3	2	3	1	3	2	7	3	7				
600	3	2	6	6	6	5	6	4	6	5	2	2	5	6	3	7				
650	1	2	4	3	2	2	7	6	4	2	3	2	4	5	5	8				
700	1	2	1	3	2	1	4	1	2	1	1	1	1	1	2	6				
750			2	4		2	2	1			2	3	2	2						
800		2	2	1	3	3	1	2			4	5	4	5	5	7				
850		1			2	1			1			2	2	1		1				
900		1	3	2	2	2	3	2	3	1		2	4	6		1				
950		1					2	1	3	1	1	4		2		3				
1000		2	2	3	4	3	5	1	3	4	6	7	10	16	3	10				
1250						2	1	1		3	3	4	3	5	4	6				
1500					1		4						2	7	4	4				
1750								1			1	3	5	1	1	6				
2000									1				1	2	5	2				
Total	111	88	83	79	78	65	74	44	48	46	37	67	74	102	69	113				
Median	\$328	370	430	430	459	485	550	517	525	488	692	592	675	680	558	632				

Table XXV shows that the 111 men teachers with no experience are receiving salaries ranging from \$150 to \$700; that 88 men teachers with one year of experience are receiving salaries ranging from \$150 to \$1,000, and so on. Table XXVI reads in the same way for women.

TABLE XXVI

TABLE SHOWING RELATION OF EXPERIENCE OF WOMEN TEACHERS  
TO SALARY

Salary	Years of Experience																								
	0	1	2	3	4	5	6	7	8	9	10	11-12	13-14	15-19	20-24	25+									
\$150	39	21	18	13	11	8	4	2	3		1	1			2										
200	36	29	18	7	5	3	3	1	1	1	1	1		1											
250	73	68	28	25	17	10	6	9	3	2	2	3		6											
300	104	107	53	53	21	20	10	14	5	5	5	7		5	8	1	1								
350	74	103	63	51	43	38	32	16	11	17	10	10	12	9	10	5									
400	65	93	110	55	43	38	29	27	12	11	16	14	9	16	6	7									
450	47	53	57	58	62	39	45	20	24	21	27	21	26	27	15	22									
500	24	23	43	25	35	42	33	14	23	11	15	12	12	16	16	9									
550	7	9	22	10	28	14	9	24	11	2	8	15	11	28	5	13									
600	4	14	19	23	19	18	41	30	26	22	29	32	28	50	31	21									
650	7	7	14	9	24	13	12	12	11	3	14	8	7	15	8	11									
700		7	6	9	6	7	5	2	6	3	4	11	8	14	7	6									
750	1	4	3		4	6	6	7	3	5	4	5	8	8	7	6									
800	1	1	1	4	5	5	7	8	7	7	12	15	8	11	15	20									
900			1		2	1	3		1		4	3	1	4	11	11									
1000											1	1	3		6	7									
Total	482	539	456	342	325	262	245	186	147	110	153	159	138	213	140	140									
Median	\$345	\$372	\$422	\$420	\$468	\$468	\$493	\$514	\$532	\$495	\$548	\$568	\$564	\$592	\$624	\$629									

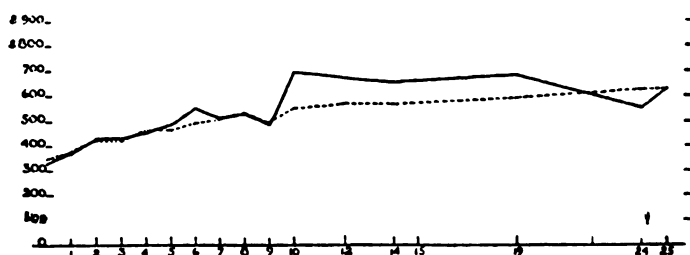


FIG. 1. The relation of length of experience to salary, using the median salaries to determine the graph. The solid line is for men teachers; the broken, for women teachers. The horizontal line is the scale in length of experience in years. The vertical scale represents the amount of salary.

The median salary of men with no experience is \$328, with one year of experience \$370, with two years \$430, with ten years \$692, etc. The median salary of women with no experience is \$345, with one year of experience \$372, with two years \$422, with ten years \$548, etc.

The tables show that the income of a group with a given experience, varies greatly. The ratio with which this income

increases also varies greatly with individuals, some reaching their maximum in three years while others take twenty. In the main, however, all salary advances due merely to experience take place comparatively early in the teacher's career.

The point above and below which correlation ceases divides teachers into two groups, the one below being those who may still profit by experience, and those above being those upon whom the operation of experience is practically nil so far as salary increases are concerned.

Referring to Table XXVI, those above who receive a salary of \$400 or less constitute an interesting sub-group. With an experience ranging from 7 to 25 years and above and a salary less than the median salary for women teachers in general, these 310 women (7.7 per cent of all the women) are hanging on to the fringes and eking out a mere existence in teaching. It seems very probable that the point at which recognized competency begins so far as it can be stated in terms of salary is at or about \$400, provided the experience is 7 years or more.

An examination of the median reveals the degree of expectancy in relation to the prolongation of experience. A correlation is evident for men up to the sixth year, but beyond that it is almost negligible. Experience counts for women for the first six years, perhaps for the first eight, but certainly not beyond. The maximum of salary after the sixth year depends less upon experience than it does upon certain qualities not measured here. On the average, five years of experience increases the salary of men by 1.5 times, ten years increases by 1.8 times, 25 years by 1.9 times. On the average, five years of experience increases the salary of women by 1.3+ times, ten years by 1.4+ times, 25 years by 1.8 times. Although the tables do not show it, it is probably true that the amounts of salary increase in later years are not due so much to promotions in teaching positions as to promotions in executive positions. "There is no uniform tendency for a given difference in lengths of experience to be accompanied by a constant or gross or percentile difference in salary."<sup>1</sup>

These tables and the graphs accompanying them certainly justify the conclusion that experience does not contribute much

<sup>1</sup>Thorndike, *The Teaching Staff of Secondary Schools in the United States*, Bureau of Education, Bulletin, 1909: No. 4, p. 41.

to the efficiency of the public school teacher. Thorndike found his facts to "support the hypothesis that the full effect of experience in teaching on efficiency in the work of a private secondary school is reached in three years" and he also concludes that after the first four or five years experience does not add greatly to the efficiency of a public high-school teacher. The slight rises that do occur among the men in the later years are no doubt due in the main to the administrative and executive character of their work and the rises that occur among the women and to some extent among the men are due probably to salary schedules that provide for increases on the basis of experience, without special reference to differences in teaching merit.

The advantages and limitations of salary schedules has been summarized by Thorndike as follows:

"It may be well to warn ourselves that even if it were true that experience after the first four or five years does not greatly add to the efficiency of a high-school teacher, still it can not be said that the customary practice in our large cities wastes money in paying for a false symptom of efficiency; for, even if the teachers of five years' experience equaled those of ten, it might still be wise to pay the latter more. In the first place, the salary schedule as a whole decides the teacher in his choice amongst positions. It is not a fixed \$1,000 that he accepts, but \$1,000 plus \$100 advance annually up to \$2,000. The advance with time is really a feature in the bargain. In the second place, it may be wise for a city to pay its teachers what will maintain a certain standard of living; rather than what will just purchase the required efficiency; and on this principle the head of a family, at least, should be advanced with age or with some other still more accurate measure of the size of his family. In the third place, the premium on experience has the administrative advantage of encouraging the adoption of teaching as a permanent profession and of preventing frequent changes in the local teaching staff. It is also free from the difficulties of competition for promotion on the grounds of pure merit.

"It is well, on the other hand, to note that the premium paid for experience may deprive a city of the best services obtainable for the price it has to pay, may retain the less competent too

surely, and may discourage the entrance to and continuance in the profession of that very desirable class who would prefer to work under a system of competitive promotion by merit."

*Relation of Length of Education to Salary*

There is no uniform tendency or relation existing between salary and education. "Education" in this report means training beyond the elementary school; it covers high-school, normal-school, and university work. One year therefore is not of equal value with another year. Those with four years of training are in most cases high-school graduates, those with six years normal school graduates, those with eight years college graduates.

Men teachers with no training range in salary from \$150 to \$2,000 or more, with one year of training from \$150 to \$1,500, etc., but more cases would put the upper limit at \$2,000 and above; women teachers with no training range in salary from \$150 to \$1,000, with one year from \$150 to \$1,000, etc. The variability in salary of any group of individuals with a given degree of training is indicated by the distribution of that group.

Two extremely important facts are revealed by this relationship: (1) The first four years of training beyond the elementary schools have little or no effect upon salary; (2) correlation between salary and education becomes increasingly marked with each succeeding year after the fourth year. A premium is thus placed upon advanced academic and professional training. No doubt such training selects those who have the inborn capacity to profit by it most, but this extra training is their one best means of advertising to the world their peculiar native strengths. ✓

As the standard number of years of training teachers have had is four, and as they receive a median salary of \$457 public school, authorities pay the average male teacher with 5 years of training \$77 more; with 6 years of training \$201 more; with 7 years of training \$343 more; with 8, \$526 more; and with 9 or more years, \$626 more.

The average female public school teachers with 5 years of training receives \$47 more than the standard; with 6 years, \$86 more; with 7 years, \$137 more; with 8 years, \$214 more; and with 9 or more years, \$231 more.

The tables show very clearly that people with the same salary vary from nine to ten years of training, while those of a certain



training vary widely in salary. Differences in people are more responsible for differences in salary than are differences in training. While salary is at all times a selective agency it becomes intensively so beyond the fourth year of training. It seems probable that education counts for more in salary in each year than experience.

If a line were drawn in Table XXVII from the \$400 group with 5 years of training to perhaps the \$750 group with 9 years of training and if a similar line were drawn in Table XXVIII from the \$300 group with 5 years of training to the \$500 group with 9 years of training, those above it in each case would be those in whom education had been a relatively bad investment. This becomes especially true if they have had more than six years of experience.

This relationship is represented graphically in Figure 2.

TABLE XXVII  
TABLE SHOWING RELATION OF TRAINING OF MEN TEACHERS  
TO SALARY

[Salary	Years of Training												
	0	1	2	3	4	5	6	7	8	9	10	11	12
\$150	1	5	1	3	3				1				
200	2	6	4	1	5	1			1		1		
250	9	10	13	11	17	7	3						
300	17	9	16	16	27	9	4				1		
350	7	25	30	21	38	11	5	4					
400	25	18	22	26	29	14	6	2			1		
450	16	14	17	18	25	12	11	2	3				
500	14	5	9	5	16	11	3	4	2		1		
550	9	8	5	10	6	5	5	1	2				
600	6	5	9	5	19	7	12	6	3	2			
650	2	3	6	5	9	10	6	9	5	1		2	
700	3	1	1	3	3	4	5	2	8				
750	3		1		5	3	2	4	1		1		
800	1	2	5	9	3	4	6	7	4	2	2		1
850	1	1		1	1	1	1	2	2				
900			2	2	2	7	6	4	9	1		1	
950	1	1	4	2	4	3		1	3	1	1		
1000		2	1	2	8	9	14	8	18	2	6		
1250	5				2	2	3	4	9	4	1		
1500	1	3		2	2	1	4	5	8	3	2		
1750				1	1	1	2	1	1	2		1	1
2000	2			1		1	2	2	5			1	1
Total	125	118	146	144	225	123	100	68	85	18	11	5	3
Median	\$455	411	421	438	457	534	658	800	975	1083	1200	1300	1400

TABLE XXVIII

TABLE SHOWING RELATIONSHIP OF TRAINING OF WOMEN TEACHERS  
TO SALARY

Salary	Years of Training										
	0	1	2	3	4	5	6	7	8	9	10
\$150	15	14	10	28	37	13	6				
200	12	14	13	16	25	6		1			
250	40	38	31	31	89	20	15	4			
300	22	39	38	67	167	60	23	5	1		
350	34	41	48	76	155	84	54	7	5		
400	44	43	56	65	143	83	83	15	4	4	3
450	25	25	50	70	147	104	78	30	14	4	2
500	17	17	27	41	84	61	83	12	17	3	4
550	4	6	7	24	59	33	53	12	18	4	
600	27	5	30	90	97	61	61	22	27	3	4
650	1	3	6	15	20	30	31	16	23	6	
700	3	2	10	12	14	14	20	9	18	1	2
750	2	1	5	2	16	12	14	8	12	3	2
800	5		3	17	9	18	12	7	10	3	5
850		2	1	1	11	14	8	1	4	4	
900	1	1	1	1	3	5	2		5		
950		1	2	3	3	2	2	2	2	1	
1000	1	1	2	4			4	1	1	1	2
1250				2	1		1	1			
1500											
1750					1						
Total	255	253	340	565	1081	620	550	153	161	37	24
Median	\$405	376	426	449	424	471	510	561	638	655	

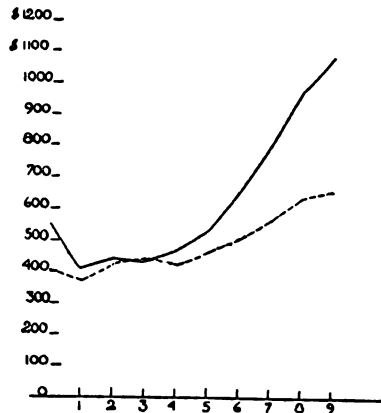


FIG. 2. The central tendency of the relationship of length of training to amount of salary. The solid line shows the central tendency for men teachers, the broken, for women teachers.

training vary widely in salary. Differences in people are more responsible for differences in salary than are differences in training. While salary is at all times a selective agency it becomes intensively so beyond the fourth year of training. It seems probable that education counts for more in salary in each year than experience.

If a line were drawn in Table XXVII from the \$400 group with 5 years of training to perhaps the \$750 group with 9 years of training and if a similar line were drawn in Table XXVIII from the \$300 group with 5 years of training to the \$500 group with 9 years of training, those above it in each case would be those in whom education had been a relatively bad investment. This becomes especially true if they have had more than six years of experience.

This relationship is represented graphically in Figure 2.

TABLE XXVII  
TABLE SHOWING RELATION OF TRAINING OF MEN TEACHERS  
TO SALARY

	Years of Training												
[Salary	0	1	2	3	4	5	6	7	8	9	10	11	12
\$150	1	5	1	3	3				1				
200	2	6	4	1	5	1			1		1		
250	9	10	13	11	17	7	3						
300	17	9	16	16	27	9	4				1		
350	7	25	30	21	38	11	5	4					
400	25	18	22	26	29	14	6	2			1		
450	16	14	17	18	25	12	11	2	3				
500	14	5	9	5	16	11	3	4	2		1		
550	9	8	5	10	6	5	5	1	2				
600	6	5	9	5	19	7	12	6	3	2			
650	2	3	6	5	9	10	6	9	5	1			
700	3	1	1	3	3	4	5	2	8				
750	3		1		5	3	2	4	1		1		
800	1	2	5	9	3	4	6	7	4	2	2		1
850	1	1		1	1	1	1	2	2				
900			2	2	2	7	6	4	9	1		1	
950	1	1	4	2	4	3		1	3	1	1		
1000		2	1	2	8	9	14	8	18	2	1		
1250	5				2	2	3	4	9	4	1		
1500	1	3		2	2	1	4	5	8	3	1		
1750				1	1	1	2	1	1	2	1	1	1
2000	2			1		1	2	2	5			1	1
Total	125	118	146	144	225	123	100	68	85	18	14	8	5
Median	\$455	411	421	438	457	534	658	800	975	1083	10, 1	12	3

TABLE XXIX  
RELATION OF THE AGE OF MEN TEACHERS TO SALARY

Age	Salary																Total	Median				
	\$150	\$200	\$250	\$300	\$350	\$400	\$450	\$500	\$550	\$600	\$650	\$700	\$750	\$800	\$850	\$900			\$950	\$1000	\$1250	\$1500
17	2																				10	\$280
18	2	3	9	18	5	1	2	1	2	3	4	1	1	2							29	303
19	1	5	14	11	9	5	9	4	4	4	4	1	1	2							54	319
20	2	1	18	11	15	7	7	1	2	2	2	2	2	2							60	377
21	1	2	9	12	15	9	7	4	2	3	4	2	2	2					1		64	377
22	1	1	5	6	2	7	4	4	2	7	4	2	2	2							54	427
23	1	3	4	2	2	12	6	3	6	3	7	1	2	2							60	450
24	1	2	2	2	10	10	5	4	4	7	7	2	2	2							50	480
25	2	5		3	8	6	6	3	3	3	3	5	2	2							60	450
26				4	4	7	7	4	2	1	1	1	1	1							49	525
27		1	1	3	3	4	4	4	3	1	1	4	1	3							50	525
28				1	1	4	4	2	1	8	5	2	1	2							38	613
29				1	1	4	4	2	1	1	1	1	1	2							1	500
30				1	1	1	3	1	1	4	3	1	1	3							32	650
31				3	4	4	4	1	1	2	2	1	1	4							26	600
32				1	1	1	4	5	1	1	2	1	1	2							46	675
33		1	1	1	3	4	5	1	1	1	6	1	2	1							39	671
34				1	3	3	3	2	1	1	1	2	2	2							27	588
35				1	2	2	2	7	1	1	5	1	1	2							41	700
36				1	2	2	2	2	1	1	1	1	1	1							31	680
37						3	3	1	1	1	2	3	1	2							19	600
38						4	4	2	1	1	2	3	1	1							26	650
39						2	6	1	1	1	2	1	1	1							91	625
40		1	2	3	4	9	8	5	4	7	5	3	1	7							65	567
41						7	7	2	2	1	1	1	1	2							52	567
42						9	7	4	6	3	3	1	1	2							20	633
43	1			1	7	4	6	6	6	3	3	1	1	1							14	633
44					3	1	4	1	1	3	3	1	1	1							2	
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*Relation of Age to Salary*

Salaries do not show any tendency to cluster about any given age for either men or women. So many factors enter into this relationship that it is exceedingly difficult to generalize without making unwarranted statements. It seems, however, that there is a correlation between age and salary for men up to the 26th year of age, perhaps up to the 30th year of age, and that the irregularity of salary in later years is more likely due to differences in people and differences in the kind of work done than to age differences. The highest median of salary for men is reached at their 35th year of age; after that there is a decline. Age has little effect on the salary of men above the \$500 salary group.

It seems that there is a correlation between age and salary for women up to the 25th year of age, perhaps the 30th year; it is not distinct afterwards. The highest median salary for women, however, is not reached until their 50th year of age. Age has little effect on the salary of women above the \$300 salary group.

Inspection of the median salaries shows that women fall into three groups as to age, those between 17 and 26, between 27 and 32, and between 33 and 60. No such divisions are clear among the men.

This relationship is represented graphically in Figure 3, page 51.





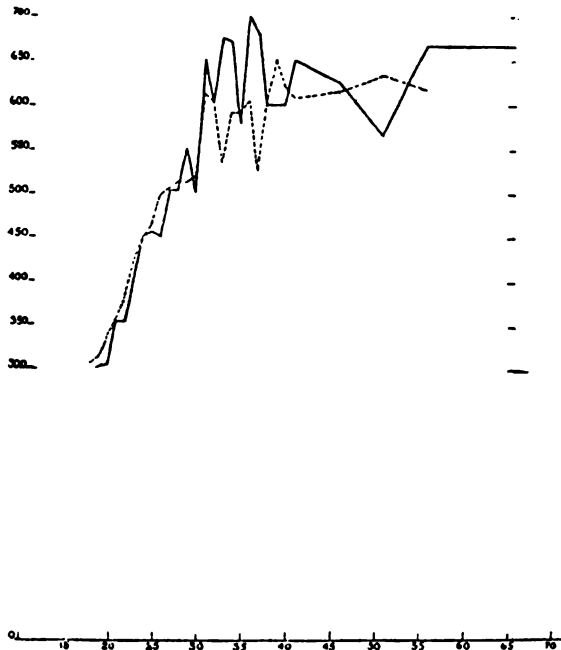


FIG. 3. The central tendency of the relationship of age to salary. The horizontal line represents age; the vertical scale, salary. The solid line shows the central tendency for men; the broken, for women.

#### *Relationship Between Training and Age*

The chief value of these tables (pages 52 and 53) is that they show that age is an inconsequential factor in the matter of training. Any age group above 20 ranges in training from no years to eight or more. On the other hand any training group up to the fifth year ranges in age from 17 to 60 or more, and those above the fifth year have almost equally as great a range. As salary is more dependent upon individual difference than upon experience or training, so training is more dependent upon native ability than upon age. In other words, efficiency in teaching is in its final analysis more a matter of people than of training, experience and age. These qualities are important, and the world pays for them, but without the inborn basis they would be valueless.



These tables show that as to training there are at least three groups of teachers; a group with less than four years of training, a group with four years, and a group with more than four years. The fashion for both sexes is plainly four years. This is the big group because it is the new group and its extreme size indicates what the standard is or is rapidly coming to be. The group with less than four as well as the group with more than four years of training, is older than the four year group. The former are older because they have been teaching longer and the latter because they have been in school longer. The former are mostly teachers while many of the latter are supervisors, principals and executive officers. The former are poorly compensated, the latter receive salaries in the main above the median wage of teachers in general.

For each training group the men are older on the average than the women. The jump in median age between 5th to 6th

TABLE XXXI  
TABLE SHOWING THE RELATIONSHIP OF THE TRAINING OF MEN  
TEACHERS AND THEIR AGE

Age	Years of Training										
	0	1	2	3	4	5	6	7	8	9	10
17	4	1	1	1	2	1					
18	6	3	5	3	8	2	1				
19	6	6	9	9	18	4		1			
20	7	2	0	5	10	10	3	2			
21	6	3	8	8	21	12	8				
22	4	4	9	3	14	12	2	3	3	1	
23	10	4	5	0	14	7	3	5	3		
24	3	4	3	6	10	3	5	6	8	1	
25	6	11	8	7	14	4	4	4	3		
26	7	8	3	2	6	6	8	3	5		1
27	2	5	5	5	0	0	7	2	4	1	
28	5	1	3	11	4	6	2	2	2		2
29	3	4	2	4	10	4	2	5	4	1	1
30	3	4	3	6	5	2	4	2	3	1	1
31	2	2	4	4	5	1	3	2	2	1	
32	3	3	6	6	6	5	6	3	3	2	
33	2	5	6	6	5	3	5	3	6	1	
34	1	3	4	1	2	5	8	1		2	1
35	4	5	3	7	5	3	4	5	4	1	1
36	2	3	4	1	5	2	2	2	6		3
37	2	2	1	2	3	3	2	2	2		
38	3	1	3	5	7	3	2		2		1
39	5	4	2	5	3	1	1	2	2		1
40-44	10	8	14	18	21	3	6	4	12	6	5
45-49	6	10	13	3	3	6	5	6	4	1	3
50-54	7	8	6	2	5	1	3	3	2		1
55-59	2	2	6	1	1	1	2	1	1		2
60-64	3	1	2	3					2	1	1
65+		1			1				1		
Total	124	119	147	143	226	124	98	68	84	20	25
Median	27.70	30.87	30.62	29.12	25.00	26.61	30.50	30.00	32.88		

and 7th to 8th training groups of the men, a fact which is not noticeable among the women, is due to the greater necessity men experience of dropping out of the normal school or college to teach. Their normal school and college careers are much more broken than those of women.

TABLE XXXII

TABLE SHOWING THE RELATIONSHIP OF THE TRAINING OF WOMEN  
TEACHERS AND THEIR AGE

Age	Years of Training										
	0	1	2	3	4	5	6	7	8	9	10
16		1									
17	2	5	5	3	5	1					
18	10	8	13	20	52	15	4				
19	22	27	26	32	100	37	13	2	1		
20	25	15	27	34	143	51	21	5	2	3	
21	20	22	29	52	123	60	50	12	10	1	
22	16	35	27	31	115	45	72	18	17	2	1
23	19	21	27	50	74	53	61	20	12	2	
24	10	20	12	30	52	52	48	16	26	7	2
25	10	16	20	33	63	42	41	20	12	1	1
26	15	4	10	34	41	32	38	9	15	5	1
27	5	15	14	17	26	23	35	7	6	1	2
28	6	5	6	30	27	18	18	11	7	1	
29	7	5	9	20	21	23	14	6	6	1	1
30	4	10	6	29	22	27	18	9	6	1	3
31	11	4	7	17	21	20	13	4	3	2	
32	5	5	11	17	20	16	10	1	7		
33	6	3	7	18	19	11	8	3	5		2
34	6	6	9	12	13	12	11		4		
35	2	2	6	9	13	20	13	2	5		
36	6	2	3	8	8	10	7		2	1	1
37	3	1	7	9	8	2	8		2	1	
38	7	3	6	5	16	9	4	1	5	3	
39	5	1	8	6	11	6	2		1	1	1
40-44	14	6	18	19	26	19	9	6	3	2	2
45-49	7	4	8	25	25	9	7	2	3	2	2
50-54	4		8	8	17	3	4	2	1		4
55-59	2	4	4	6	7	5	7				
60-64	1		2	1		1	2				
65	3	1		1							
Total	253	251	335	576	1077	622	547	156	160	37	23
Median	24.75	24.1	24.50	25.3	22.34	24.44	24.40	24.67	26.5		

## CHAPTER III

### THE SOCIO-ECONOMIC BACKGROUND OF TEACHERS

#### INTRODUCTORY

Social consciousness is reflected less in the nature of the people who constitute the teaching profession than it is in the materials advocated for the curriculum. In the one case the public is passive and indifferent, and in the other active and insistent. The cry for the higher professional training of teachers is made more by educational leaders than by an aroused public.

In most cases the motive that starts teachers is economic pressure. The professional motive comes late; it must be due in part to experience and in part to training. In this connection it is worth recording that the vast majority of beginners have had no professional training. Professionalization would come much sooner if more could be induced to enter teaching because of a desire to confer service. Teaching then would be both a means and an end and not solely a means as it is so frequently now. The economic motive never can become as refined as the truly professional motive. As conditions are, the professional attitude must be cultivated through wise administration while teachers are in service.

The formative influence of any body of workers must always be in terms of their social class. Their strengths and limitations are determined not merely by their immediate ancestry but also by their social position. Although social classes shade imperceptibly into each other still at their modal points they are sufficiently different to restrict or enrich the educational and cultural advantages afforded individuals. Certainly the lower the class from which teachers come in social position the more inadequate their rational basis and insight for determining the values of the materials and technique of education.

Practically the only statistical attempt at studying the social and economic background of the teaching population is included in the Census Report on "Statistics of Women at Work," published in 1907 and based upon the census returns of 1900. As the title indicates this article refers to women only. It is inexact in that the term teacher is made to include all kinds of teachers, both public and private.

Bearing this in mind this census report has the following positive facts to contribute regarding the social and economic background of women in teaching.

1. Teaching is first in numerical importance among the professional occupations open to adult women and fifth among all occupations into which they enter. They are outnumbered by servants and waitresses, agricultural laborers, dressmakers, and laundresses.

2. The occupations that surpass teaching in numbers are those that require less preparation.

3. Women predominate in teaching in all sections of the country.

4. The percentage which women formed of the total number of teachers was larger in cities of 25,000 inhabitants and over than in smaller cities and country districts. It was 82.1 per cent in the former and 70.6 per cent in the latter.

5. The majority, 63.5 per cent, are native white women with both parents native; the native white with one or both parents foreign born constitutes 27 per cent of the total; while the foreign born composes the remainder.

6. "The percentage which native whites with both parents native formed of the total was greater in only 5 occupations than it was in teaching, and all 5 were professional pursuits which contained a comparatively small number of women. The percentage of foreign born whites, on the other hand, was lower only among women engaged as government officials or as agricultural laborers. The rank of teaching in the proportion of native whites of foreign parentage was twenty-eight. The occupations in which a larger percentage of the total number of women were native white of foreign parentage were mainly manufacturing or mechanical pursuits or else connected with trade and transportation." (p. 110)

7. The census report showed, "for the country as a whole, that in proportion to their number in the general population the native white woman with one or both parents foreign born contributed more teachers than any other nativity class, and that native white women with both parents native were second in this respect. In the large cities the number of teachers per 10,000 adult women was larger for the native whites with both

parents native than for the native whites with one or both parents foreign born, but in the smaller cities and country districts the reverse was the case." (p. 112)

8. A larger proportion of female bread-winners were found to be engaged in teaching in the smaller cities and rural districts than in the cities. The presumption was that this difference was due to a greater diversity of occupations in the larger cities.

9. The average age of women teachers is less than the average age of female bread-winners.

Other facts of interest and of importance in the Report will be referred to as they relate to the succeeding tables.

The natural history of teachers as far as it relates to age, training, experience, and salary, was treated in the preceding chapter. The sections that follow in this chapter will be given over to consideration of the statistical facts, social and economic in their origin, that delimit the extent and character of the training, influence the age of beginning, and hence affect both amount of salary and the character of the experience. In the first section will be found facts pertaining to the nativity and income of the parents of teachers; in the second section, those that show the condition of the home; in the third, the size of the families; and in the fourth, the occupations of the parents of teachers.

#### SECTION I. PARENTAGE OF TEACHERS

##### *Nativity*

On Basis of Place of Birth

On Basis of Parental Language

##### *Income*

Sex Distribution

In Relation to Beginning Age

In Relation to Training

TABLE XXXIII

DISTRIBUTION OF MEN TEACHERS ACCORDING TO NATIVITY OF PARENTS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
1.....	37	72	354	20		29	55	5	103	5	4	77	106	156	22	13	18	1076
2.....	4	7	22	1	2		2	5	9			7	13	2		3	11	86
3.....	1		2				1		2			2	1	1		1	1	12
4.....		1	1															2
	42	80	379	21	2	29	58	10	114	5	4	86	120	159	22	17	30	1178

TABLE XXXIV  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO NATIVITY OF PARENTS

	Ida.	Ill.	Ind.	Ca.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wig.	Total
1.....	79	241	507	70	56	96	411	41	283	30	54	408	599	232	106	45	45	3383
2.....	24	42	99	10	24	5	24	57	17	4	4	70	141	26	7	7	44	605
3.....	3	5	3	1	3	4	1	2	2	1	1	10	5	2	1			43
4.....	1		1						3			1						6
	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037

In Tables XXXIII and XXXIV, figure 1 in the first column means "native born with native born parents"; 2, "native born with one or both parents foreign born"; 3, "foreign born with foreign born parents"; 4, "not answering."

It is unfortunate that my returns do not show how many generations removed the representatives of the "native born with native born parents" class are from European parentage. We can be sure only that they are two generations removed.

Of the men 91.3 per cent are native born with native born parents, 7.3 per cent are native born with one or both parents foreign born, and 1 per cent are foreign born with foreign born parents.

Of the women 83.8 per cent are native born with native born parents, 14.9 per cent are native born with one or both parents foreign born, and 1.1 per cent are foreign born with foreign born parents. These figures for women when compared with those of the Census Report show a wide divergence, but it must be remembered that the latter included all sorts of teachers, public as well as private.

The difference in the nativity classes between men and women is a matter of some consequence. The proportion of women in teaching is constantly increasing. Those who are native born with native born parents are only about eight-ninths as numerous as the same class for men and those who have one or both parents foreign born are twice as numerous. If these differences are increasing, and there is some probability that they are in the large eastern cities, then the problem of training teachers who have not become thoroughly Americanized becomes increasingly momentous.

The proportion which the nativity classes form of the teaching population is necessarily determined by the composition of the population in a given community; hence it differs widely in the different states. In order to show the geographical variations of these classes, an exceedingly comprehensive study would be required.

Comparing the number of women teachers with the total number of working women, the Census Report showed that the native white women with both parents native had the largest percentage of teachers in the total number of employed women, that the native born with one or both parents foreign born were next, and that the foreign born were last. In other words, "the importance of teaching decreased with the economic strength of the classes compared."<sup>1</sup> The import of this quotation is that the native born with native born parents constitute the most prosperous class, the native born with one or both parents foreign born parents constitute the second class in prosperity, while the strictly foreign born class are lowest in the economic scale. The largest percentage of teachers in the total number of employed women comes from the first class and the smallest percentage comes from the last class.

However, it is barely possible that the differences one notes when he compares different states and different regions with each other are not to be attributed wholly to population differences; they may indicate a greater tendency on the part of one nativity class to become teachers than another. The Census Report in part corroborates this impression. By comparing each nativity class of teachers with its nativity class in the total population, one finds that for the country as a whole the native white women with one or both parents foreign born contributed more teachers than any other nativity class. But when these figures are separated into those from cities of 30,000 population and over and those for smaller cities and country districts, the reverse is true; the percentage of native born with both parents native is first in the former and second in the latter.<sup>2</sup> (pp. 110-114.)

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<sup>1</sup>Census Report previously referred to, p. 112.

<sup>2</sup>*Ibid.*

*Nationality Classes on the Basis of Parental Language*

Men and women teachers were classified by states as to nationality on the basis of the language of their parents. Naturally the highest proportion was found to be those who are American born and who speak the English language; 76.4 of the men and 73.3 of the women belong to this group. Combining with this group those whose parentage is clearly Anglo-Saxon and whose mother tongue therefore is English, we have 78.6 per cent of the men and 79.5 per cent of the women.

The percentage of male teachers both of whose parents speak the German language is 11.3; of female teachers, 6; of the male teachers whose parents speak the Norwegian or Scandinavian language, 7; of the female teachers, 1.3; of the male teachers with a mixed parental language, 4.1, of the female teachers, 6.1. Scattering and almost negligible per cents were found for the French, Swiss, Scotch, Polish, Bohemian, Jewish, Russian and Danish languages. It was obvious that the western European non-English countries were contributing a larger percentage of these than the eastern European non-English countries. This must be due in part to the differences in the periods when these different nationalities have emigrated to this country and have become factors in the population of the country. Among the reports sent in no teachers were found among the immigrant classes that are now pouring into the United States from Southern Europe. Apparently some stability of class from the point of view of mere time limit of residence, is required before entrance into teaching can be secured.

TABLE XXXV

DISTRIBUTION OF MEN TEACHERS ACCORDING TO INCOME OF PARENTS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
0.....	1	4	20			2	3		18			1	4	8	32	1	3	101
1.....	4	6	67			2	2		18				0	8	21	2	3	148
2.....	8	18	92	4		0	14		24	3	1	18	23	49	5	4	7	279
3.....	7	12	76	1	1	1	9	1	16	1	2	25	20	12			7	200
4.....	7	13	65	1	1	5	12	2	14			7	10	16	6	4	3	175
5.....	10	10	25	4		5	9	1	10			8	12	9	1		2	108
6.....		3	8	4		1	2	2	1	1		2	7	6		1	1	30
7.....	1	2	5	2			1	1	1			3	5	2		1		24
8.....	1	4	11	2		1	2	2	4			5	6	3			2	43
9.....	3	8	10	3		3	4	1	8			5	6	9		1		61
	42	80	379	21	2	20	58	10	114	5	4	86	120	150	22	17	30	1178



TABLE XXXVI  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO INCOME OF  
PARENTS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
0	11	54	148	23	6	23	67	26	75	12	14	163	161	95	37	9	14	938
1	5	31	40	5	11	12	28	7	24	10	10	71	46	38	15	4	14	370
2	6	37	74	6	15	9	74	11	46	6	8	81	106	22	7	10	12	529
3	11	38	70	4	14	7	68	19	39	2	14	49	120	26	12	10	10	512
4	20	31	90	5	17	13	86	10	36	4	4	62	121	31	9	8	7	554
5	19	42	79	13	9	10	46	13	31	1	3	52	59	12	11	5	12	417
6	4	9	19	2	1	4	16	7	19	4	1	17	22	5	6	1		140
7	6	6	10	6	3	4	12	3	3	1	1	10	16	2	2	2	5	89
8	5	10	32	5	3	4	17	1	10	2	2	16	36	6	2	9	9	160
9	19	31	39	12	4	19	22	6	22	4	1	58	59	13	9	4	6	328
	106	280	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037

In Tables XXXV and XXXVI the 0 in the first column gives the number who failed to answer the question, the frequencies opposite 1 indicate those who stated that the parental income was less than \$250, opposite 2 between \$250 and \$500, opposite 3 between \$500 and \$750, and so on to 9, which means \$2,000 and above.

This is the only question in the questionnaire list that called for an opinion or the exercise of judgment. Any deductions based upon it are therefore subject to the same sort of criticism and unreliability heaped upon questionnaire studies of the traditional type. The amount of value to be attached to the answers is a matter of opinion. It would seem, however, that one of the best sources for securing information pertaining to parental income next to the parents themselves, would be the mature judgment of their own children.

The piling up of the cases opposite 9 is due to the failure to distribute those whose income was considerably more than \$2,000. Such a distribution, however, would not have greatly affected the median or the variability; it would have merely presented a truer description of the range and distribution, particularly in the upper quartile.

Omitting those who failed to answer, the median income of the parents of the men at the time they entered teaching was \$639; for the parents of the women it was \$813; and for teachers in general, \$767. Presuming that men are better judges than women of the income of their parents, it would seem either that the women over-estimated the income of their parents or

that they came from a better economic class. That men are more observant of these matters than women is shown by the fact that only 8.5 per cent of the men failed to answer the question while 23.3 per cent of the women declined to hazard an answer.

Considering the answers as they were given, the income of 50 per cent of the parents of the male teachers ranges between \$359 and \$1,023, and that of 50 per cent of the parents of the female teacher ranges between \$441 and \$1,215.

In many cases the failure to answer no doubt was due to the smallness rather than to the largeness of the parental income. The author is convinced, after examining the natural history of each of these cases, that the large majority of those not answering represent incomes that would fall below the median income of those who did answer.

Of the 938 women who failed to answer, 186 had deceased fathers and 48 more had neither parent living. These 48 may be regarded as representing a true zero parental income. Counting the 186 with deceased fathers as having an income between zero and \$250 and distributing the others by 30, 25, 20, 15, and 10, we would get a median income for the parents of the women of \$753.

But 8 of the men failing to answer had both parents dead and only 14 had deceased fathers. Distributing these in the same way as the above gives a median income for the parents of the men of \$691.

It will be observed that these corrections make but very little difference in the medians for either sex.

*Relation of Parental Income to Beginning Age*

TABLE XXXVII

RELATION OF PARENTAL INCOME TO BEGINNING AGE OF MEN  
TEACHERS

Beginning Age	Parental Income								
	1	2	3	4	5	6	7	8	9
16	7	9	2	5	4	1	1		3
17	8	25	18	12	6	2	2	5	9
18	16	65	44	47	21	12	3	10	10
19	32	56	27	31	24	4	4	8	14
20	35	45	38	25	18	3	7	8	7
21	25	31	36	19	12	6	3	5	5
22	10	19	14	14	6	4		2	3
23	5	9	9	10	7	3	1		2
24	2	9	5	5	4		1	2	3
25	4	4	2	4	2	3	1		1
26		1	2	1	3			3	
27	2		1						
28	1	1	1				1		1
29				1		1			1
30		3			1				2
Totals	147	277	199	174	108	39	24	43	61
Median age	20.3	19.7	20.2	19.7	19.7	20.0	20.3	19.7	19.6

TABLE XXXVIII

RELATION OF PARENTAL INCOME TO BEGINNING AGE OF WOMEN  
TEACHERS

Beginning Age	Parental Income								
	1	2	3	4	5	6	7	8	9
16	17	25	18	10	16	3		3	13
17	57	66	50	53	48	9	10	16	15
18	107	139	163	176	100	29	20	39	76
19	62	95	98	137	105	33	29	36	62
20	54	105	88	87	62	20	16	21	47
21	39	49	40	38	35	20	6	15	61
22	19	25	22	24	17	9	2	10	18
23	6	8	13	9	12	5	3	6	15
24	2	7	4	9	4	4		3	8
25	3	2	4	1	2	3	1	4	3
26	2	1	3	3	2			2	1
27	3	3	1	1	2			1	1
28			1		1	1			2
29		2			3			1	
30	6	1	1		4			2	1
Totals	377	528	506	548	413	136	87	159	323
Median age	19.1	19.3	19.3	19.2	19.4	19.8	19.5	19.6	20

In Tables XXXVII and XXXVIII the figures across the top from 1 to 9 show the amount of parental income; 1 meaning \$250 or less; 2, \$250 to \$500, etc. Those in the first column to the left refer to the beginning age of teachers. Using column 4 under women teachers, for example, the table reads: 10 teachers whose parents had an income between \$750 and \$1,000 began teaching at 16 years of age; 53 began at 17; 176 at 18; and so on.

Only 1,072 men and 3,071 women answered both of the questions in regard to income and beginning age. If the answers of the others had been secured they would probably have made but an imperceptible difference in the median.

One would naturally expect that the age of beginning would increase as parental income increases, that an increase of income would carry with it extra years of preparation that would raise the beginning age correspondingly. No such correlation appears among the men, and it is present among the women only to a very slight degree. The income of parents makes almost no difference in the age their children begin teaching.

#### *Parental Income in Relation to Training*

Parental income in relation to training is shown in Tables XXXIX and XL. The numbers at the top of each table represent the parental income and the numbers in the first column the number of years of training received.

If a true correlation existed between these two factors with each \$250 or \$500 increase in income there would be a corresponding proportionate increase in number of years of training. This presumption holds true to a slight extent for men only; a parental income under \$2,000 makes no difference on the average in the number of years of training women receive.

For both sexes the range in training is from 0 to 10 years irrespective of the amount of parental income. It is obvious from the tables however that income does make but a very slight difference in the total number of years of training beyond the elementary school that children receive. Parents of small income are bunched more on the lower side of four years of training and those with an income of over \$1,000 appear in greater numbers on the upper side of four years of training. The facts also show that the differences between the sexes in this particular are insignificant.

TABLE XXXIX  
RELATION OF PARENTAL INCOME TO YEARS OF TRAINING OF  
MEN TEACHERS

Training	Parental Income									
	0	1	2	3	4	5	6	7	8	9
0	25	12	33	18	9	10	3	3	3	6
1	5	31	37	14	13	6	2		4	6
2	9	28	44	21	16	12	3	1	4	9
3	12	18	33	25	25	13	3	3	4	6
4	20	29	51	47	33	21	9	2	8	8
5	5	7	36	22	25	10	3	6	4	6
6	8	9	17	22	19	9	4	4	6	3
7	4	6	7	14	13	9	6	2	3	5
8	10	7	13	12	16	9	3	3	6	6
9	2	1	3	3	2	4				3
10	1		5	2	4	5	3		1	3
Totals	101	148	279	200	175	108	39	24	43	61
Median	3	3	3	4	4	4	4	5	4	4

TABLE XL  
RELATION OF PARENTAL INCOME TO YEARS OF TRAINING OF  
WOMEN TEACHERS

Training	Parental Income									
	0	1	2	3	4	5	6	7	8	9
0	65	40	51	35	15	10	2	6	5	15
1	51	33	50	39	35	10	6	6	7	17
2	77	40	50	44	32	7		8	16	21
3	120	60	80	77	91	58	17	15	22	28
4	241	89	128	146	154	134	40	26	39	71
5	150	44	68	78	93	73	23	14	31	45
6	125	44	66	56	83	55	21	8	22	69
7	48	9	13	18	17	24	10	3	4	16
8	39	7	14	11	14	16	8	3	11	36
9	12	1	3	1	5	2	3		3	7
10	1	3	7	1	3	3	3			3
Totals	938	370	529	512	554	417	140	89	160	328
Median	4	4	4	4	4	4	4	4	4	5

Men whose parents have an income of \$250 or less receive on the average three years of training; those whose parents have an income between \$250 and \$500 also receive on the average three years of training; while those with an income above \$500 and over receive four years of training. Women whose parents have an income of \$2,000 or less receive on the average four

years of training, while those whose parents have an income of \$2,000 or more receive five years of training. Here again we see an evidence that more training is demanded of women than of men in order to get into teaching. For a girl to prepare for teaching means a greater economic burden upon the family than for a boy to prepare for teaching.

It has already been demonstrated that men teachers are coming from families whose median income is \$639, and women teachers from families whose median income is \$813. This can be but little more than a bare living income, and yet these same families are on the average giving their children the advantage of four years of school beyond the elementary school. The fact that this is done and can be done is a splendid tribute to that public spirit which puts the public high school into every community. Without it, if our teachers were to continue to come from the same economic stratum, we would be compelled to recruit the teaching force with young people of only elementary school training.

## SECTION II. FAMILY CONDITIONS

### *With Reference to Family Unity by Sexes*

### *With Reference to Family Unity by Nativity*

No attempt was made in the original questionnaire to get the facts needed to describe the marital condition of teachers. It is a matter of common observation that the percentage of single men and women among teachers is exceptionally high, particularly among the latter. Any differences in marital condition are no doubt due mainly to differences in the age distribution of the different classes.<sup>1</sup>

But some facts were secured that shed some light upon the unity or broken condition of the families producing teachers. These are distributed in the following tables.

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<sup>1</sup> Census Report, Statistics of Women at Work, p. 118.

TABLE XLI

TABLE SHOWING THE CONDITION OF THE FAMILIES FROM WHICH  
MEN TEACHERS COME

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
Both parents living . . . .	36	64	287	14	1	24	40	10	90	5	4	7	100	125	16	14	27	937
Father dead . . . . .	3	6	39	2	1	9	8		16			1	10	18	1	3	3	121
Mother dead . . . . .	4	8	38	4		3	9		8			2	9	13	4	1	1	104
Both dead . . . . .	1	1	11	1			1					1	1	3	1			11
Not answered . . . . .		1	4															5
Total . . . . .	42	80	379	21	2	29	58	10	114	5	4	86	120	150	22	17	30	1178

TABLE XLII

TABLE SHOWING THE CONDITION OF FAMILIES FROM WHICH  
WOMEN TEACHERS COME

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
Both parents living . . . .	83	221	466	46	67	86	317	72	336	28	48	421	585	198	71	38	63	3046
Father dead . . . . .	9	33	93	22	8	10	70	15	40	5	3	85	97	33	23	6	14	573
Mother dead . . . . .	13	23	41	7	7	6	28	12	26	2	0	47	44	18	17	7	9	314
Both dead . . . . .	1	10	10	6		1	12	1	3		1	25	15	2	3	1	3	95
Not answered . . . . .		2			1	1						1	4					9
Total . . . . .	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037

TABLE XLIII

PERCENTILE SUMMARY OF THE ABOVE TABLES

	Men	Women
Percentage of whole number of each sex having both parents living . . . . .	79.5	75.5
Percentage of whole number of each sex having father dead . . . . .	10.3	14.2
Percentage of whole number of each sex having mother dead . . . . .	9.0	8.0
Percentage of whole number of each sex having both parents dead . . . . .	1.0	2.3
Percentage of whole number of each sex having one or both parents dead . . . . .	20.3	24.5

One man out of every five and one woman out of every four who enters the teaching, has one or both parents dead at the time he or she enters teaching. Necessity due to a broken home has driven the women who are in teaching to self-support harder than it has driven the men who are in teaching.

Although the differences between the sexes are not great, still they are significant. Fewer women have both parents living than men when they begin teaching, more women have their fathers dead, more men their mothers, and twice as many women as men both parents. Here again the relative emphasis of economic stress upon the sexes is obvious.

*Family Conditions According to Nativity*

TABLE XLIV

PERCENTILE DISTRIBUTION SHOWING THE CONDITION OF THE FAMILY ACCORDING TO NATIVITY OF TEACHERS

	Native born, native born parents		Native born, one or both parents foreign born		Foreign born, foreign born parents	
	Men	Women	Men	Women	Men	Women
Both parents living.....	79	76	74	72	83	71
Father dead.....	10	13	17	19		16
Mother dead.....	9	8	8	7	17	11
Both dead.....	2	3	1	2		2
One or both dead.....	21	24	26	28	17	29

The following conclusions are obvious: (1) For each class there is a larger percentage of women than men with one or both parents dead. (2) Women who are teaching have apparently been more sensitive to economic pressure than the men who are teaching. This becomes clear when the two sexes of each class are compared as to the percentage who had one or both parents dead. One man out of 5 and one woman out of 4 of the first nativity class (reading from the left), one man and one woman out of every 4 of the second class, and one man out of every 6 and one woman out of every 4 of the third class, had one or both parents dead. (3) Parental mortality seems to be greater among the parents of these teachers of foreign birth or of semi-foreign parentage. (4) The great majority of our teachers are coming from the nativity class in which the percentage of broken homes is least. (5) More women than men enter teaching when the father alone is dead and more men than women enter teaching when the mother alone is dead.



## SECTION III. SIZE OF FAMILY

*Sex Distribution**According to Parental Language*

TABLE XLV  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO NUMBER OF  
BROTHERS AND SISTERS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
0.....		5	24			1	1		4		1	10	13	18		1		78
1.....	3	11	46	1		3	7	1	8			8	29	17	1		3	138
2.....	0	13	43	1	1	4	7	3	14	1	2	14	19	20	1	1	4	154
3.....	3	9	50			1	7	1	11		1	15	25	17	1		3	144
4.....	5	13	47	5		5	7	1	13			13	10	18	3	1	3	144
5.....	8	9	50	4		6	6	3	21	2		9	9	13	4	2	3	149
6.....	5	10	36	3		4	8		11			4	6	14	2	1	3	107
7.....	5	4	31	3		1	2	1	9	1		4	5	15	4	1	1	87
8.....	2	3	24		1	3			6			5	1	10	2	5	4	66
9.....	2	2	8	1			5	1	7	1		1	3	9	2	4	2	46
10.....		1	10	2			2		6			1		2	2	5	4	32
11.....	2		6			1	2		5					1	1		1	16
12.....		2	2				2		1			2		2			1	10
13.....	1																1	2
14.....			1													2		3
15.....																		1
16.....			1															1
17.....															1			1
Median.....	42	80	379	21	2	29	58	10	114	5	4	86	120	159	22	17	30	1178 4

TABLE XLVI  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO NUMBER OF  
BROTHERS AND SISTERS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
0.....	3	22	53	3	2	1	25	9	10	2	5	50	72	12	3	6	2	280
1.....	9	30	80	11	10	6	53	6	31	5	13	103	130	33	14	5	6	554
2.....	16	37	81	12	15	13	54	16	49	5	13	105	124	34	19	6	9	598
3.....	16	41	97	10	11	18	83	16	46	7	8	103	133	27	20	0	15	660
4.....	23	42	90	11	9	21	57	11	40	1	7	86	98	35	14	2	11	559
5.....	16	36	63	11	11	18	41	15	39	1	4	57	56	30	9	8	8	407
6.....	9	24	57	9	7	10	45	10	34	5	2	39	49	22	11	4	15	352
7.....	4	20	37	6	6	8	29	5	17	3	3	20	35	23	15	3	4	248
8.....	4	20	19	4	5	7	23	4	10	1	3	14	22	9	3	7	107	
9.....	2	10	14	2	3	2	18	4	10	4		5	10	16	5	3	4	111
10.....		5	7		4	1	2	4	3			1	0	2		4		42
11.....	3	1	2	1			3		4			1	5	3	1	1		25
12.....	1	1		1			1		2			1	2	3		2	1	15
13.....							2											2
14.....			1		1				1					1			1	5
15.....																	1	1
16.....																		
17.....										1								1
Median.....	106	289	610	81	83	105	436	100	305	35	58	579	745	250	114	52	89	4037
	4	4	3	4	4	4	4	4	4	3	2	3	3	4	4	4	5	3

These tables read as follows: 789 of the men teachers had no brothers and sisters 138 had one, 154 had two; 280 of the women teachers had no brothers and sisters, 544 had one, 598 had two, and so on.

The range in the number of brothers and sisters for men is from 0 to 17, and for women it is the same. The median number of brothers and sisters men teachers have is  $\frac{4}{3}$ ; the median number of brothers and sisters women teachers have is  $\frac{3}{4}$ . By adding one to each of these we get the median number of children in the families of each sex; for men it is 5; for women 4. This means that the size of the family from which men teachers are coming is 7, and for women 6. Irrespective of sex the family unit for teachers in general is 7.

The size of the family from which teachers are coming is considerably larger than the average-sized family for the whole United States, which in 1900 was 4.7 persons. Indeed it is greater than that of the average-sized American family for any time within the last sixty years (in 1850 the average size of the family in the United States was 5.6 and it has decreased gradually ever since). This condition, however, is not characteristic of the United States alone, as the leading civilizations of the world at the present time have rapidly diminishing birth rates.

Any elaborate discussion of the relation of the decrease of the birth rate and the size of the family to civilization would probably be out of place here. That it is a sociological fact of supreme importance is urged by every serious student of social evolution. The relation between the two becomes more obvious when we observe that social groups do not reproduce with the same rapidity. In view of this there is always present the danger that the population of the lower classes will produce too great a share of the increase. The social and biological bearing of such a situation is implied in the appended quotation from Karl Pearson.<sup>1</sup>

<sup>1</sup>"France is becoming a land of Bretons because the Bretons alone have large families. And what about England? Our birth-rate has been going down for, perhaps, thirty years. Who will venture to assert that this decreased fertility has not occurred in the inferior stocks? On the contrary, is it not the reckless and improvident who have the largest families? The professional classes, the teaching classes, the substantial and provident working classes—shortly, the capable elements of the community with a certain standard of life—have been marrying late, have been having small families, and have been increasing their individual comfort, and all this is at the expense of the nation's future. We cannot suspend the struggle for existence in any class of the community without stopping progress; we cannot recruit a nation from its inferior stocks without deteriorating our national character."

Quoted from a lecture on National Life delivered at Newcastle, 1900.

Clearly then, the most significant single figure brought out by this investigation is the size of the family that produces teachers. The implications of it strike at the very root of our social structure, and also at the very heart of our teaching population. We must not, however, infer that all families of seven produce teachers, as the size of the family operates differently according to the social status of the classes affected. It is only those families of seven where the parental income is only about \$800 that produce the teaching population.

In light of these facts the following fundamental conclusions are defensible: (1) The teaching force is being recruited from large families,—probably the most fecund element of our total population; (2) the transmission of our best culture is turned over to a group of least favored and cultured because of its economic station; (3) even considering that those that enter teaching are the best from these prolific families, they represent on the whole an unmarried group which does not perpetuate itself. In other words, the intellectual possessions of the race are by rather unconscious selection left to a class of people who by social and economic station, as well as by training, are not eminently fitted for their transmission.

#### *Size of Families According to Parental Language*

On the basis of the language spoken in the home twelve hundred American-born teachers with English-speaking parents, selected at random, all the families in which German, Scandinavian, or Irish is spoken, and all of those in which there is a mixed language, were distributed according to the numbers of brothers and sisters the teacher had when she or he began teaching. No particular effort was made to localize these facts and yet it was noted that the Germans are conspicuous in New York, New Jersey, Pennsylvania, Indiana, Illinois, and Missouri, that there are none of them in New Hampshire, and that they are very scarce in the other states; that the Scandinavians are settled mainly in Wisconsin and Minnesota, with a considerable sprinkling in Idaho and Iowa; that the Irish are slightly more numerous in New York and Maryland, but are more widely scattered than either of the others.

The median number of brothers and sisters native men teach-

ers with English-speaking parents have is 4; for women it is 3; irrespective of sex it is 4. Irrespective of sex the median number for those of mixed parental language is 4; for the Germans, 5; for the Scandinavians, 5; and for the Irish, 6.

Here again, we have evidence that the native stock is the least fecund of the classes represented. Those of mixed parentage in a sense constitute a group undergoing the process of transition from alienism to nativity. Although neither parent may speak the English language, still the mere amalgamation of the races marks a breakdown of numerous foreign traditions and customs. These families of mixed blood have one more child on the average when compared with those of the women of native English-speaking blood and one or more less than those where the foreign strain is kept pure.<sup>1</sup>

It appears that there is a constant submergence of the pristine population and of the thoroughly naturalized population by waves of foreign immigration, who experience but a superficial assimilation before another European army forces them with slow tread across the continent.

In these newer elements according to my returns,—the foreign and semi-foreign population,—the median-sized family and the variability are greater than the median-sized family and the variability of the native white stock. Of the different elements in our total population the native born with one or both parents foreign born is contributing a larger proportion of teachers than any other nativity class.<sup>2</sup> The ratio of the female teachers of this semi-foreign born class to its number in the total population is greater in the rural schools and smaller cities, while the ratio of the strictly native stock is greater in the larger cities.\* (See

<sup>1</sup> The following commentary illustrates the point:

"Selection is not only a selection in favor of lower economic and social classes, but also very markedly a selection in favor of foreign blood. Already in the United States the white population of native parentage is only just over half for the United States, counting equally and including the states which now receive little emigration as well as the states which receive much. Now, within this body the native born have fewer marriageable women; the marriageable women marry later; fewer of them marry at all; many of them are childless; those then that have children have fewer children—not only have fewer children, but have fewer surviving children. The death rate lessens the difference between the number of births, but does not wipe it out. It still remains true that the native woman rears fewer children than the foreign born." (Emily Balch, *Am. Jour. Soc.*, 12: 623.)

<sup>2</sup> *Ibid.*, Census Report, p. 112.

\* Census Report, Statistics of Women at Work, p. 112. Adapted from

table below.) In view of these facts and of the additional one that the native white stock shows a rapidly diminishing birth rate and that the number of public schools is constantly increasing, the problem of public school administration and of the training of public school teachers is quietly experiencing an enormous transformation.

#### SECTION IV. OCCUPATION OF PARENTS

##### *Sex Distribution*

In Relation to Nativity

In Relation to Parental Income

##### *Income of Farmers by States*

In Relation to Size of Family

##### *Geographic Distribution of Farmers' Families as to Size*

Only 4,404 teachers answered the question pertaining to the occupation of parents, 3,367 women and 1,037 men. The men did better than the women. The failure of the totals to agree with the totals of the preceding tables is due partly to deducting those whose fathers were dead. In a few cases where the father was dead a family occupation was indicated; these were classified as if the father were living. Of those whose fathers were living only 214 of the women and only 52 of the men gave no answers.

TABLE CXLIV.—Number and Proportion of Teachers in the Female Population 16 Years of Age and Over Living in Cities Having at Least 50,000 Inhabitants and in Smaller Cities and Country Districts, Classified by Race and Nativity, for Continental United States: 1900

Race and Nativity	Women 16 Years of Age and Over								
	Aggregate			In cities having at least 50,000 inhab.			In smaller cities and country districts		
	Total	Teachers		Total	Teachers		Total	Teachers	
		No.	Per 10000		No.	Per 10000		No.	Per 1000
Native white, both parents native.....	12,130,161	207,823	171	1,703,955	35,514	208	10,426,206	172,309	165
Native white, one or both parents foreign born....	4,288,969	88,449	206	1,700,200	30,670	180	2,588,760	57,779	223
Foreign born, white.....	4,403,494	17,218	39	2,095,206	7,553	36	2,308,288	9,665	42

TABLE XLVII  
DISTRIBUTION OF MEN TEACHERS ACCORDING TO THE OCCUPATION OF THEIR FATHERS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
Not answered	4	5	20											8	3	1	1	52
Farmers.....	29	47	245	6		21	17	4	81	5	2	33	75	71	14	9	20	687
Prof. men....	2	4	13	6			7	1	4	1		7	8	8		5	1	69
Business.....	3	5	11	3		3	6	2	5			10	9	5	1		1	61
Artisans.....		4	20	2		1	5	2	1	1	1	7	6	24			3	79
Laborers.....	2	4	16		1				4		1	9	9	19				69
Pub. officials.		3	1					1	1			2					1	8
Retired.....			5	1		2							1	3				12
Totals....	40	72	331	18	1	27	49	10	98	5	4	72	110	138	20	15	27	1037

TABLE XLVIII  
DISTRIBUTION OF WOMEN TEACHERS ACCORDING TO THE OCCUPATION OF THEIR FATHERS

	Ida.	Ill.	Ind.	Ga.	Ia.	Kan.	Md.	Minn.	Mo.	Mont.	N. H.	N. J.	N. Y.	Pa.	Tenn.	Tex.	Wis.	Total
Not answered	3	17	44	6	3	4	26	2	12	5	2	31	29	18	3	3	6	214
Farmers.....	47	127	198	8	33	55	128	36	145	10	19	103	335	73	22	24	46	1409
Prof. men....	8	12	42	10	6	6	23	6	19	6		41	26	12	13	6	2	238
Business.....	14	26	82	13	4	11	58	11	40	2	10	106	47	36	23	4	4	493
Artisans.....	13	22	83	12	5	9	62	16	16	3	19	106	96	33	11	5	8	519
Laborers.....	7	30	35	2	22	6	34	10	23	2	4	61	76	37	6	2		361
Pub. officials.	1	3	10			2	9	1	4	1		6	11	4			2	58
Retired.....	2	7	11	7	1		3	3	4			12	14	4	1			69
Invalids.....	1	1	1							1								6
Totals....	96	245	506	58	75	93	344	85	263	30	54	466	636	217	83	44	72	3367

It is hardly probable that all of these had no occupation, but it must have been frequently true. Some may have declined to answer because the paternal occupation did not bear the stamp of social respectability, and others no doubt were indifferent about the whole matter. These have all been classified as "not answering."

The tables may be summarized as follows:

TABLE XLIX

	Men	Women
Percentage who are the children of farmers.....	69.7	44.8
Percentage who are the children of men in professional life.....	7.0	7.5
Percentage who are the children of business men....	6.2	15.3
Percentage who are the children of artisans.....	8.0	16.4
Percentage who are the children of laborers.....	7.0	11.3
Percentage who are the children of public officials...	.8	1.8

This summary shows the proportionate contribution of each occupation class to the teaching population. There are a little over one and one-half times as many men as women teachers who are the children of farmers. The percentage of men teachers who are the sons of men in professional life is practically the same as the percentage of women teachers who are the daughters of men in professional life. There are two and one-half times as many women teachers who are the daughters as there are men teachers who are the sons of business men. The percentage of women teachers who are the daughters of artisans is twice as great as the percentage of the men teachers who are the sons of artisans. The women teachers who are the children of day laborers are one and one-sixth more numerous than the men teachers. and the women who are the children of public officials are twice as numerous. The majority of our teachers are coming from the farming and industrial classes. As trade and transportation are absorbing an increasing proportion of the growing army of workers of each sex while agriculture includes a diminishing proportion, we may expect the percentage of teachers coming from the farms to grow less year by year.

As the majority of men engaged in teaching are teaching in the country we would naturally expect to find more of them sons of farmers than of any of the other occupational classes. But when we compare the number of teachers the farming element of our population is contributing with the total farming population of continental United States as indicated by the census of 1900,<sup>1</sup> we note that it is contributing far more than its quota of teachers. According to this census 39.6 per cent of all the males and 18.4 per cent of all the females engaged in gainful occupations were in agricultural pursuits. It will thus be observed that agriculture contributes almost twice as many men teachers and two and one-half times as many women teachers as the percentage of each of the total occupational population indicated it should have contributed.

This classification into occupations here given is exceedingly rough. Under professions were classed physicians, lawyers, teachers, ministers, civil and mechanical engineers, architects, editors, etc.; under business, in general all occupations that per-

<sup>1</sup>Census Report: Occupations, p. XXVI.

tain to trade and transportation; under artisans, carpenters, blacksmiths, shoemakers, tinsmiths, butchers, tailors, printers, masons, etc.; under day laborers, teamsters, flagmen, stock drivers, brakemen, etc.; and under public officials, mail clerks, registrars, rural mail carriers, town or city watchmen, constables, police, sheriffs, etc.

TABLE L  
RELATION OF PARENTAL OCCUPATION TO NATIVITY  
PARENTAL DISTRIBUTION

	Men						Women					
	Farmers	Profess.	Business	Artisans	Laborers	Official	Farmers	Profess.	Business	Artisans	Laborers	Official
Native born, native parents.....	93.5	90	85	88.3	90	75	86.4	91.3	83.6	80.4	80.3	88
Native born, foreign parents.....	5.3	10	15	10.4	7.2	25	13	7.7	18.4	18.5	19	12
Foreign born.....	1.2			1.3			.6	1.0	2.0	1.3	.8	

This table reads: "93.5 per cent of the sons of farmers who are teachers are native born with native born parents, 5.3 per cent are native born with one or both parents foreign born, and 1.2 per cent are foreign born with foreign born parents." The other columns are to be read in exactly the same way. This table shows: (1) that the sex differences in the percentages of the professional and business classes of those who are native born with native born parents are very slight, while wide differences exist among the others; (2) that the percentage of women of semi-foreign parentage is greater among the farmers, business men, artisans and laborers than it is for men.

The Census<sup>1</sup> of 1900 showed that 60.4 per cent of the males and 32.6 per cent of the females engaged in agriculture in the

<sup>1</sup> Adapted from Census Report. Occupations; 1900, p. CIV.

This table is incomplete as the Chinese, Japanese, Indians and Negroes are not included.

NOTE.—A large error exists in such comparisons as this as the census classifies people as to nativity on the basis of place of birth, while my classification is on the basis of parental language.

	Males		Females	
	Agriculture	Professions	Agriculture	Professions
Native born, native born parents	60.4	64.1	32.6	64.0
Native born, one or both parents foreign born.....	11.4	17.7	3.0	23.5
Foreign born.....	11.0	14.2	4.3	6.0



United States were native born with native born parents. Assuming that this is still approximately true, then this occupational-nativity class is producing about 50 per cent more than its share of male teachers and 150 per cent more than its share of female teachers. The other two nativity classes engaged in agriculture fall short of their share of male teachers, but the native born with one or both parents foreign born contributes four times its share.

The percentage of the native white stock engaged in professional pursuits was practically the same for both sexes in 1900, and it contributed almost exactly the same percentage for both sexes, about 45 per cent more than its share. The other nativity elements in professional work fell short of their share.

The classification of my returns does not permit of a valid comparison with the other classes used by the census, but it seems very probable that the classes represented by domestic and personal service, in trade and transportation and in manufacturing and mechanical pursuits, are not contributing their quota of teachers.

#### *Relation of Parental Occupation to Parental Income*

Only 3,371 teachers who gave parental occupation also gave the parental income. On the theory that these afford a fair registration of the income of each of these lines of occupation in general, they have been distributed in Table LI.

TABLE LI  
TABLE SHOWING THE RELATION OF THE OCCUPATION OF PARENTS  
OF TEACHERS TO PARENTAL INCOME

Income	Farmers			Professions			Business			Artisans			Laborers			Officials		
	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.
-\$250	88	122	210	1	10	11	1	13	14	6	13	19	11	35	46		2	2
\$250-500	167	218	385	11	19	30	7	25	32	17	46	63	26	86	112	1	4	5
500-750	118	182	300	9	29	38	7	25	32	18	75	93	15	109	124	2	5	7
750-1000	95	194	289	14	34	48	10	68	78	10	113	123	8	46	54	1	11	12
1000-1250	62	150	212	8	20	28	8	60	68	7	92	99	3	9	12	1	12	13
1250-1500	22	47	69	3	17	20	5	37	42	4	24	28		2	2	3	4	5
1500-1750	14	35	49	3	6	9	2	15	17	4	15	19	1	4	5	1	1	2
1750-2000	28	59	87	4	16	20	3	36	39	1	10	20	1		1	3	3	3
2000+	37	104	141	5	33	38	15	101	116	3	28	31		3	3	1	8	9
			1742			261			447			504			359			58
Median			\$730			\$1025			\$1210			\$806			\$542			\$1058
Quartile			315			447			575			287			189			365

When this table is compared with Tables XLVII and XLVIII we are forced to the conclusion that the classes that are supplying the most teachers are the ones whose incomes are the least.

Although the importance of teaching has been shown to increase with the economic strength of the nativity classes compared, the same fact is not so true of the economic strength of the occupation classes compared. The classes with the least income are contributing the largest percentages of teachers, and it seems altogether probable that it is the elements in these classes below the medians from which teachers are coming in the largest numbers.

An unpublished study by Dr. George Drayton Strayer based upon returns that the Bureau of Education secured in 1908 from the public and private normal schools of the United States, shows that the population preparing to teach is coming from the farming and trade classes. His returns also seem to indicate that the income of the parents of students in normal schools is greater than the income of the parents of teachers in general. This is to be expected as they are not only a select, but a comparatively small group when compared with the great horde who rush into teaching every year with no normal school preparation.

#### *The Income of Farmers by States<sup>1</sup>*

As farming is producing more teachers than any other type of occupation my figures were distributed to show the relation of the parental income of the children of farmers to geographical location. Only a summary of these tables is included here.

It is not claimed that these figures represent the income of farmers in general in these states. It is claimed that they represent the income of farmers from whose homes teachers are coming. The assumption could no doubt be verified that farmers in general in these states have an income that exceeds that of farmers whose children become teachers.

To get the size of family, add three to the median for each of these occupations. The size of the farmers' family from which teachers are coming is on the average 7; the size of the

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<sup>1</sup>There is a possibility that some teachers failed in answering this question to take into consideration the fact that the family living comes from the farm. It is probable therefore that these medians are too small.

TABLE LII

State	Median income	Quartile
Idaho.....	\$925	\$381
Illinois.....	913	700
Indiana.....	673	332
Iowa.....	929	391
Kansas.....	875	493
Maryland.....	770	290
Minnesota.....	750	356
Missouri.....	688	378
New Hampshire.....	469	250
New Jersey.....	557	272
New York.....	794	369
Pennsylvania.....	416	296
Tennessee.....	528	409
Texas.....	594	264
Wisconsin.....	761	666

professional man's family, on the average 6, and so on. For none of the occupation lines represented is the median-sized family less than six.

*Relation of Parental Occupation to Size of Family*

TABLE LIII

TABLE SHOWING THE RELATION OF NUMBER OF BROTHERS AND SISTERS OF TEACHERS TO THE OCCUPATION OF FATHERS

	Farmers			Professional			Business			Artisans			Laborers			Officials		
	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.	M.	W.	Tot.
0.....	32	77	109	4	10	14	2	31	33	8	45	53	5	19	24	1	7	8
1.....	75	151	226	11	37	48	4	77	81	11	74	85	6	52	58	1	16	17
2.....	74	175	249	8	44	52	6	80	86	16	90	106	13	62	75	1	4	5
3.....	78	226	304	11	38	49	8	86	92	7	99	106	7	61	68	2	12	14
4.....	72	184	256	9	42	51	11	67	78	8	65	73	7	54	61	1	5	6
5.....	79	175	254	8	13	21	7	58	65	12	53	65	6	30	36	1	4	5
6.....	64	142	206	2	20	22	7	41	48	1	41	42	7	27	34	1	3	4
7.....	57	110	167	2	14	16	4	25	29	6	16	22	2	16	18	1	3	4
8.....	44	73	117	3	9	12	11	11	4	16	20	3	16	19	3	3	3	3
9.....	25	51	76	3	10	13	5	10	15	3	12	15	2	3	5	2	2	2
10.....	13	23	36	4	3	7	3	6	9	5	7	12	3	5	8			
11.....	12	9	21	1	1	2	2	2	1	4	5	5	5	5				
12.....	6	7	13	1	1	2	1	1	1	1	2	2	2	2	1	1	1	1
13.....	2	2	4	1	1	2							1	1				
14.....	3	2	5															
15.....				1	1	2												
16.....	1	1	2															
17.....	1	1	2															
Median....			2044			306			549			601			409			64
25 P.....			4			3			3			3			3			4
75 P.....			2			2			2			2			2			2
			6			2			0			6			5			5

A fact of tremendous socio-economic importance is now clear: On the average teachers are coming from the industrial and farming families that have an income of less than \$800 a year and that consist of six, and usually seven members. The occupation classes that supply the most teachers are those with the least parental income and of very large families.

*Geographic Distribution of Farmers According to Size of Families*

The farmers were distributed geographically to find the number of brothers and sisters teachers coming from them had, and also to find the size of the teacher-producing farmers' families in the respective states. The median results in regard to the number of brothers and sisters were: Idaho 5, Illinois 5, Indiana 4, Iowa 5, Kansas 5, Maryland 5, Minnesota 5, Missouri 5, New Hampshire 3, New Jersey 3, New York 3, Pennsylvania 4, Tennessee 5, Texas 5, Wisconsin 6. To get the size of the families 3 must be added to each of these medians.

The facts in this chapter warrant the conclusions that teachers from all over the United States are coming from a population element that has a relatively high fecundity; that the families thus represented in teaching have an income that is close to the bare living family wage; and that these families are engaged mainly in agricultural and mechanical pursuits.

This condition means that the population that teaching selects is restricted as to its opportunities for personal improvement and for liberal culture, that in the main it must enter the field of teaching with little or no professional preparation. What wonder is there that teachers receive small salaries and that there is a woeful lack of professional spirit among them?

SECTION V. THE TYPICAL AMERICAN TEACHER

The typical American male public school teacher, assuming that he can be described in terms of the medians previously referred to, but remembering that a median is a point about which individuals vary and that our hypothetical individual is as likely to be below as above it, is twenty-nine years of age, having begun teaching when he was almost twenty years of age after he had received but three or four years of training

beyond the elementary school. In the nine years elapsing between the age he began teaching and his present age, he has had seven years of experience and his salary at the present time is \$489 a year. Both of his parents were living when he entered teaching and both spoke the English language. They had an annual income from their farm of \$700 which they were compelled to use to support themselves and their four or five children.

His first experience as a teacher was secured in the rural schools, where he remained for two years at a salary of \$390 per year. He found it customary for rural school teachers to have only three years of training beyond the elementary school, but in order for him to advance to a town school position he had to get an additional year of training. He also found that in case he wished to become a city school teacher that two more years of training or six in all beyond the elementary school were needed.

His salary increased rather regularly during the first six years of his experience, or until he was about twenty-six years of age. After that he found that age and experience played a rather insignificant part in determining his salary, but that training still afforded him a powerful leverage.

The typical American female teacher is twenty-four years of age, having entered teaching in the early part of her nineteenth year when she had received but four years training beyond the elementary schools. Her salary at her present age is \$485 a year. She is native born of native born parents, both of whom speak the English language. When she entered teaching both of her parents were living and had an annual income of approximately \$800 which they were compelled to use to support themselves and their four or five children. The young woman early found the pressure both real and anticipated to earn her own way very heavy. As teaching was regarded as a highly respectable calling and as the transfer from the school room as a student to it as a teacher was but a step, she decided upon teaching.

Her first experience as a teacher was gotten in the rural school where she remained but two years. If she went from there to a town school her promotion was based almost solely upon her experience as no additional training was required by the officials of the town. If she desired to teach in a city school,

she was compelled to secure at least one more year of training in all, but each additional year of training she found increased her salary.

So far she has profited each year of her brief experience by having her salary increased and this will probably be true for the next two years should she find it necessary to remain in teaching that long.

Into the hands of teachers who more or less nearly conform to the above description is given the duty of transmitting the culture of the race to the youth of the land, of training them in habits of thinking, in modes of behavior, in methods of work, and in intelligent appreciations. Some of the unanswered questions are: What initiative and resourcefulness have such teachers? What perspective due to thorough preparation have they secured? What vision of the possibilities of the calling do they possess? What modicum do they add to our professional inheritance? What chance has the average American boy or girl of being wisely and intelligently educated by the average American teacher, male or female?

## CHAPTER IV

### PROBLEMS CREATED BY THE EXISTING COMPOSITION OF THE TEACHING POPULATION

The problems having their basis in the facts of the foregoing chapters are of fundamental and far-reaching consequence. Some of them must remain unanswered until many thorough-going scientific investigations have been made. The primary reason for treating those that follow in this chapter is to show the means of improving the teaching corps and the necessity of creating and maintaining a true profession of teaching.

*Feminization.* Of the 5,215 replies used in this report 75.5 per cent are from women and 24.4 per cent are from men. The percentage for men is a little higher than the average for men in teaching for the whole United States, which is 21.7 per cent. Feminization of the teaching corps has been increasing so rapidly that within the last forty years the percentage of men in teaching has decreased by almost exactly 50 per cent.<sup>1</sup>

Feminization of the teaching force has been due in part to the changed character of the management of the public schools, to the specialization of labor within the school, to the narrowing of the intellectual range or versatility required of teachers, and to the willingness of women to work for less than men.

Since the early 70's arguments have been advanced against the disproportionate increase of women in teaching and the arguments have without exception proved ineffective. The movement is the natural result of a swift moving social evolution, whose tide the voice of no leader nor the act of any legislative assembly can stem. Feminization therefore is descriptive of a condition which cannot be averted. The condition could only be changed by providing radically different selective agencies and this is not likely to be done.

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<sup>1</sup>Report of the Commissioner of Education, 1909, Vol. II, p. 390.

*Salaries.* The salary tables show that the pay and responsibility of the median woman teacher is not greatly different from that of the median man teacher. It is the extremes of pay and responsibility that differ greatly.

The higher salaries of the towns will continue to attract the competent rural teacher and the higher salaries paid in large cities will continue to attract the more competent town teachers. Those who are able to secure a normal school or college training will not start in the rural schools with their meagre salaries, but will go direct to the town or city.

Community differences in salaries should be evaluated in terms of community differences in the standard and the cost of living. Great variation in the cost of living is undoubtedly represented in my returns. Smaller cities and semi-urban communities occasionally pay salaries equalling those paid in cities of the half million class, but the salaries are far from being equal in value. The mere cost of living when one is comparing cities of the same size, is not sufficient; one also needs to know the respective standards of living in them. It varies according to the class to which one belongs in a given community. No statistics of the cost of living in the various sections of this country are available. The only clue to the answer my returns give is the income of the various occupation classes. From these it is clear that the salary American teachers receive is very close to the bare living wage.

The tastes of the teachers might be those of people in refined economic leisure, but the salaries, being those of mechanics and day-laborers or even less, prevent the enjoyment of these higher things. Between what they ought to do and can do there is a wide gulf. This partly explains why young men are increasingly dissuaded from entering teaching. It is claimed, and we cannot be sure that the claim is false, that the male recruits in teaching come from a lower social stratum than they did a half century or more ago. Certainly an inadequate income, one that increases in a ratio less than the corresponding ratio of the increase in the cost of living, tends to attract mediocrity—not talent.

Wherever a depressed rate of wages in any profession or industry occurs as compared with other lines in the same locality, the conclusion is inevitable that to that line of work entrance is



comparatively easy, that a high standard of fitness is not universally required and that the employers of its results are willing to accept less than a first-rate quality of results.

*Pensions.* Considering teachers in general some hint can be gotten from the tables relating to age and service of the extent to which any general pensioning scheme would need to be carried. Of the 5,211 teachers reporting but nine are 65 years old and over. To be sure the totals here given cannot be regarded as being typical of the age of teachers in some of the large cities. But for American teachers considered by and large two men and two women teachers out of a thousand are 65 years old and over.

It is true that the various forms of teachers' pension laws and compulsory insurance laws in force and proposed in this country are based almost wholly upon years of service rather than upon a teacher's calendar age. My service tables show that not quite 5 men and 1.5 women in a hundred ever teach 30 years. The mode for the pension laws in this country for voluntary retirement is 30 years. If pension legislation were made national in its scope, it would upon this basis require but a mere bagatelle to meet the annuities of retiring teachers. If one counted in those that are retired because of disability the total would still be insignificantly small.

No one urges the enactment of pension laws merely to protect the old. It is claimed that any form of pension or compulsory insurance will elevate the social status of teachers, raise their economic level, lengthen their term of service, encourage professional preparation, and raise the standard of certification. Thus the teaching staff would enjoy greater permanency, and men and women of higher training and of more native ability would be attracted to teaching. If any small fraction of these claims can be realized there is every social reason for increasing the pressure to secure the laws.

Unfortunately my data do not furnish all the facts needed for the actuarial calculations of the risks against which teachers are to be insured. They give no consideration to health or to the causes of disability and of withdrawal nor to the extent of the mobility of the teaching class. Shifting teachers are, under present laws, with certain restrictions, prohibited from enjoying

the pension as there is no comity between states or between cities.

*Higher Entrance Qualifications.* The National Education Association Committee on Salaries, Tenure, etc., reporting in 1905, secured reports showing the status of teaching and of teachers in the various states. Reports of state superintendents of public instruction since then show that conditions have not changed materially.<sup>1</sup> Relatively the same class of people are entering teaching, the same uncertainty and insecurity of position still exists, salaries are still so inadequate as to attract only mediocrity, and professional preparation over the country at large is for the relatively few. Professionalization is still an ideal, the dream of the educational optimist. The lower positions are supplied to-day with the young, the immature, the poorly equipped. These young people pay a small price to get into teaching; they work little and they gain little.

The first-hand testimony contained within the citations listed above shows the deplorable condition of the rural schools and of the small country towns. Superintendents state that trained beginners can scarcely be induced to take country schools; that the teachers of the country and small town schools do little

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<sup>1</sup> Connecticut. Report of Board of Education. 1906, p. 25, 70.  
 Florida. Biennial Report of State Superintendent of Public Instruction. 1906, p. 9.  
 Georgia. Report of State School Commissioner. 1905, p. 37, 82, 85; 1906, p. 4, 68; 1907, p. 108.  
 Illinois. Report of State Superintendent of Public Instruction. 1906, p. 239.  
 Kentucky. Biennial Report of State Superintendent of Public Instruction. 1908, p. 22.  
 Maine. Report of State Superintendent of Public Instruction. 1905, p. 13.  
 Maryland. Report of State Board of Education. 1910, p. 9.  
 Mississippi. Report of State Superintendent of Public Instruction. 1906, p. 39, 41.  
 New Hampshire. Report of State Superintendent of Public Instruction. 1905-6, p. 184.  
 New York. Report of Commissioner of Education. 1907, p. 11.  
 North Dakota. Report of State Superintendent of Public Instruction. 1905-6, p. 19.  
 Ohio. Report of Commissioner of Common Schools. 1906, p. 29.  
 Oregon. Report of State Superintendent of Public Instruction. 1905, p. 181, 199.  
 Pennsylvania. Report of State Superintendent of Public Instruction. 1907, p. 1, 9, 11.  
 South Dakota. Report of State Superintendent of Public Instruction. 1908, p. 16.  
 Utah. Report of State Superintendent of Public Instruction. 1906, p. 18.

voluntarily for self-improvement; that there is a want not only of training, but of aptness to teach and of personality; that examinations must be lowered to the level of the available candidates and that many are licensed who are known to be unfit.

The extracts also show that economic law operates: (1) to force some into teaching, (2) to force some out of teaching, and (3) to force some to make more adequate preparation in order to get better positions. In so doing it affects three different groups of people.

Some of the effects of the itinerant nature of the teachers' work are also uncovered. The opinion of these administrators is that it makes supervision difficult and the continuity of work impossible.

The tragedy of the public school situation is the tragedy of the rural schools. That the public mind through sheer inertia and by legal sanction permits persons with inadequate and indifferent training to enter this field of labor, has been the great misfortune and handicap of the rural schools.

My returns likewise emphasize the necessity of a higher training before service. As 83 per cent of the men now teaching and 68 per cent of the women now teaching got their initial experience in the rural schools, the great necessity for raising the entrance requirements at that end of the line is obvious. Certainly a better quality of teachers can be secured only by raising the qualification standards for entrance; but the history of certification in the United States shows that an increase in qualification is effective only as it is accompanied by an increase of salary,—a very effective argument that the public is always willing to pay for better talent.

*Training Teachers in Service.* The facts in the body of the paper show that the public school administrator is constantly face to face with a number of grave problems. Because the technique of teaching is being rapidly transformed both as to theory and as to practice and because of the shifting personnel of the teaching group, the supervisor finds it necessary to re-teach annually the technique of teaching.

Teachers' meetings and some form of institute work cannot be discontinued. There should be perhaps a differentiation of matter and technique according to the maturity, experience and training of the groups concerned,—as indeed there already is

in a few places. The administrator must continue to urge and perhaps occasionally to assist the teachers to take summer school work and to attend associations for the purpose of securing a broader professional and general culture.

*The Craft Spirit.* The great problem of the superintendent may then be said to be that of creating a spirit of professionalization. For the majority of these teachers, those occupying the lower levels, this ideal when they first enter is chimerical. It exists among the favored few who recognize the high value of their servanthip and who struggle to secure a co-operative spirit among teachers in general.

These few recognize that as a class we have as yet no professional solidarity, and that to the extent that we have no craft spirit we have no profession. Until we are dominated more than at present by a code of professional ethics, teachers will remain a mere aggregation of units.

*An Aroused Public Conscience.* In order to better these conditions the leaders in education must engage continuously in a campaign for the higher qualifications of teachers, for an increased compensation, for greater security and permanence of position, and for a more widespread public recognition of the respectability and service of the calling. These things can be attained partly by making teachers conscious that they will be respected and appreciated about in the same proportion as they are worthy of respect and partly by making the public conscious that so long as the poorly qualified are supplanted by equally incompetent there will be the tendency to perpetuate prejudice and disrespect.

Pr. R  
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